

=> fil reg
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STRUCTURE FILE UPDATES: 26 APR 2009 HIGHEST RN 1139453-56-7
DICTIONARY FILE UPDATES: 26 APR 2009 HIGHEST RN 1139453-56-7

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TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

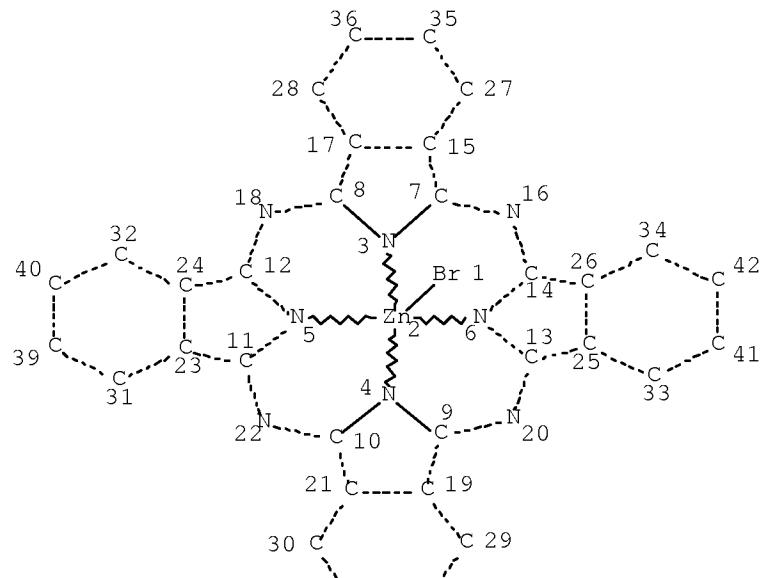
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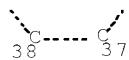
<http://www.cas.org/support/stngen/stndoc/properties.html>

=> d que 142

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L4	1	SEA FILE=REGISTRY	SPE=ON	ABB=ON	PLU=ON	97626-82-9/RN
L7	1	SEA FILE=REGISTRY	SPE=ON	ABB=ON	PLU=ON	L2 AND C32 H16 BR N8 ZN/MF
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L9	27	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L3
L10	2	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L4
L13	29	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	(L8 OR L9 OR L10)
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Page 1-A



Page 2-A

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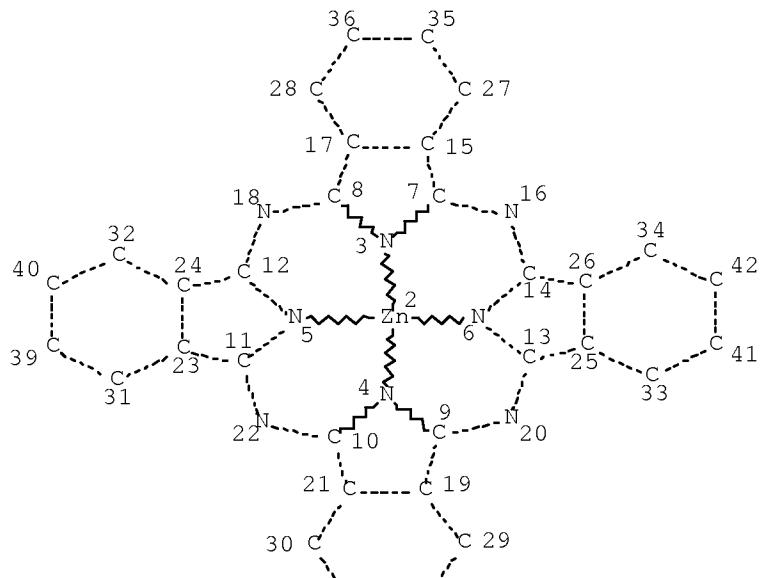
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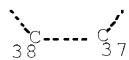
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NUMBER OF NODES IS 42

STEREO ATTRIBUTES: NONE

L25 STR



Page 1-A



Page 2-A

NODE ATTRIBUTES:

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 41

STEREO ATTRIBUTES: NONE

L27 3989 SEA FILE=REGISTRY SSS FUL L25

L31 6 SEA FILE=REGISTRY SUB=L27 SSS FUL L20

L32 3 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L31

L42 3 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L32 OR L10 OR L14

=> fil hcap

FILE 'HCAPLUS' ENTERED AT 10:07:30 ON 28 APR 2009

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FILE COVERS 1907 - 28 Apr 2009 VOL 150 ISS 18
 FILE LAST UPDATED: 27 Apr 2009 (20090427/ED)

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

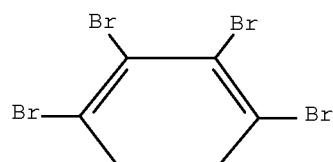
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L42 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2009:332310 HCAPLUS Full-text
 DOCUMENT NUMBER: 150:331535
 TITLE: Coloring materials containing phthalocyanine pigments having substituted central metals for green color filters
 INVENTOR(S): Takayama, Masakazu; Kimura, Shuichi; Suda, Yasumasa
 PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 24pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

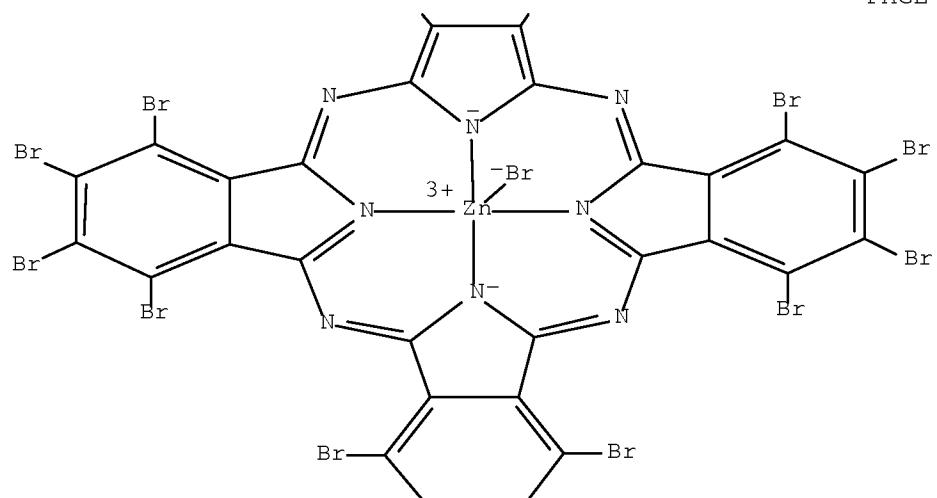
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JP 2009057435	A	20090319	JP 2007-224952	20070831
PRIORITY APPLN. INFO.:			JP 2007-224952	20070831

ED Entered STN: 19 Mar 2009
 AB The pigments contain hexadecasubstituted phthalocyanine skeletons and substituted central metals, wherein the substituents of the phthalocyanine skeletons are Cl and/or Br, the central metals are Zn or Ni, and the substituents of the central metals are halo, CN, NO₂, amino, heterocycle, R₁OR₂, R₃COR₄, and/or R₅S(O)R₆ (R₁, R₂ = H, alkyl, aryl; R₃, R₄ = alkyl, aryl; R₅, R₆ = alkyl). Thus, reacting tetrabromophthalic anhydride with formamide, reacting the resulting tetrabromophthalimide with PC15 and NH₃, and reacting the resulting tetrabromodiminoisoindoline with ZnBr₂ gave hexadecabromophthalocyanine-ZnBr complex. The above complex was then mixed with Bu methacrylate-methacrylic acid-Me methacrylate-styrene copolymer and trimethylolpropane triacrylate (NK Ester ATMPT), applied on a glass plate, and cured to give a test piece showing high Y value (XYZ colorimetric system).
 IT 1132674-44-2P 1132781-82-8P 1132781-84-0P
 1132781-86-2P 1132781-89-5P
 (pigment; coloring materials containing phthalocyanine pigments having substituted central metals for green color filters)
 RN 1132674-44-2 HCAPLUS
 CN INDEX NAME NOT YET ASSIGNED

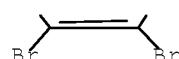
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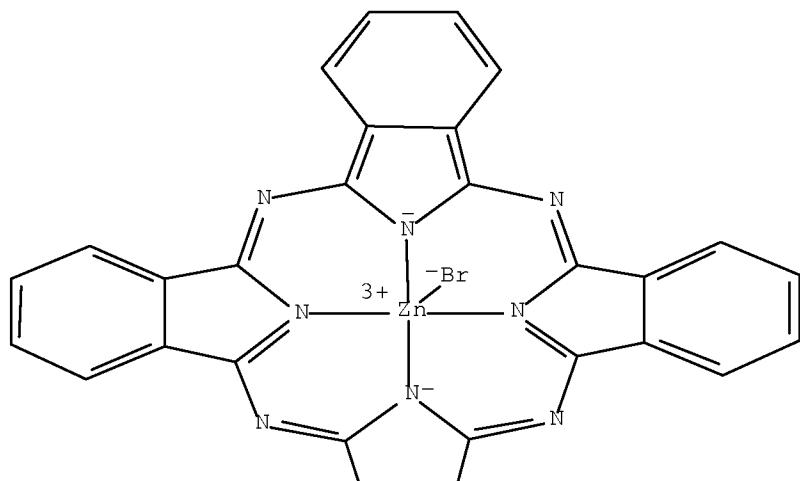
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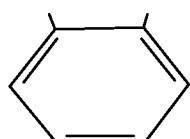
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PAGE 1-A



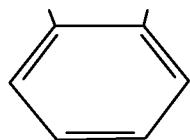
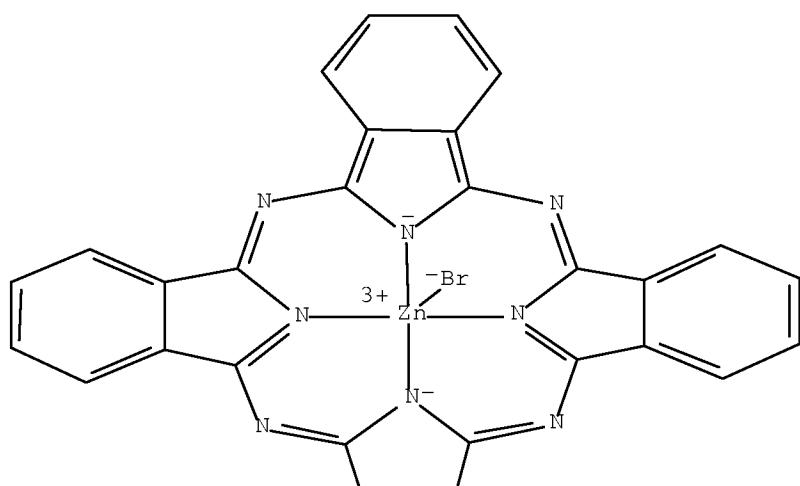
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15 (D1-Br)

B1-C1

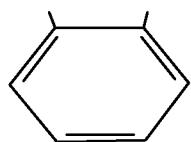
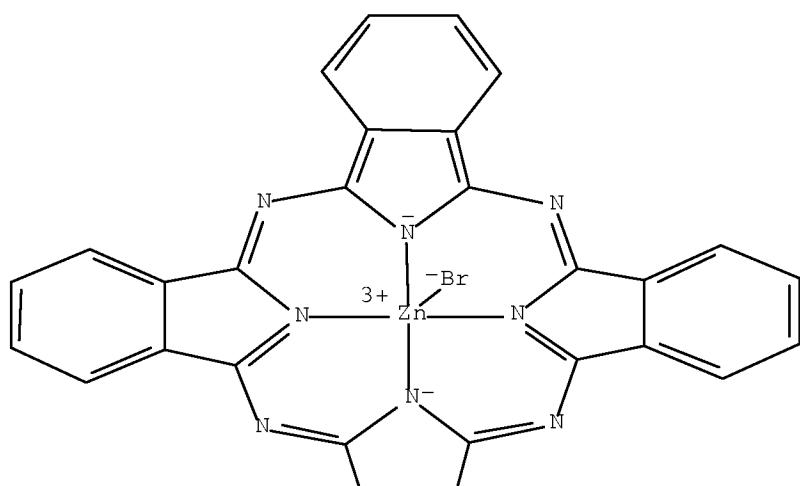
RN 1132781-84-0 HCAPLUS
CN Zinc, bromo[C,C,C,C,C,C,C,C,C,C,C-dodecabromo-C,C,C,C-tetrachloro-29H,31H-phthalocyaninato(2-)-KN29,KN30,KN31,KN32]- (CA INDEX NAME)



12 (D1—Br)

4 (D1—Cl)

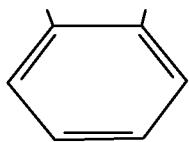
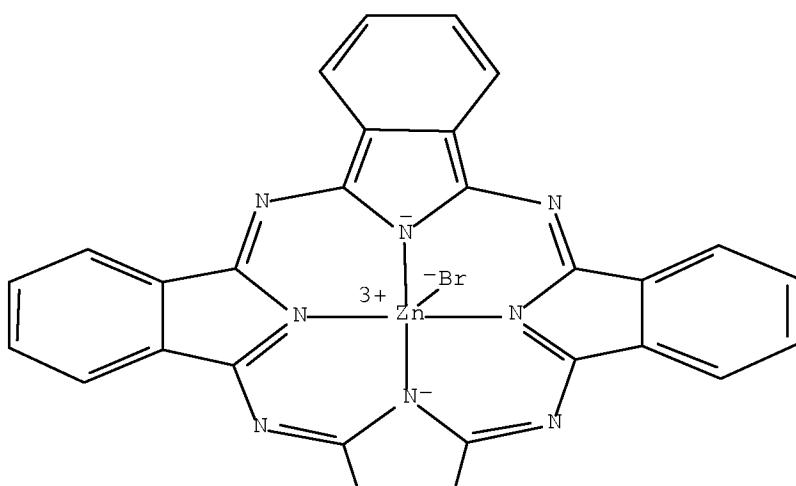
RN 1132781-86-2 HCPLUS
 CN Zinc, bromo[C,C,C,C,C,C,C,C,C-decabromo-C,C,C,C,C-hexachloro-
 29H,31H-phthalocyaninato(2-)-
 κN29,κN30,κN31,κN32]- (CA INDEX NAME)



10 (D1-Br)

6 (D1-C1)

RN 1132781-89-5 HCPLUS
 CN Zinc, bromo[C,C,C,C-tetrabromo-C,C,C,C,C,C,C,C,C,C,C,C-dodecachloro-
 29H,31H-phthalocyaninato(2-)-
 κN29,κN30,κN31,κN32]- (CA INDEX NAME)



4 (D1—Br)

12 (D1—Cl)

CC 41-7 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 74, 78

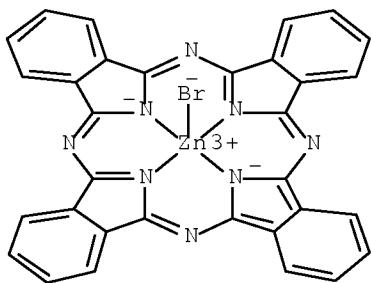
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	1132781-97-5P	1132781-98-6P		

(pigment; coloring materials containing phthalocyanine pigments having substituted central metals for green color filters)

L42 ANSWER 2 OF 3 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2004:80982 HCPLUS Full-text
 DOCUMENT NUMBER: 140:154571
 TITLE: Green pigment for color filter, green pigment dispersion, photosensitive color composition, color filter, and liquid crystal panel
 INVENTOR(S): Tatsuzawa, Masahiro; Sega, Shunsuke; Nishio, Akitaka; Kudou, Arata; Kiuchi, Eiichi; Katsume, Hiroshi
 PATENT ASSIGNEE(S): Dai Nippon Printing Co., Ltd., Japan; Dainippon Ink and Chemicals, Incorporated
 SOURCE: PCT Int. Appl., 80 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004010172 W: KR, US	A1	20040129	WO 2003-JP9344	20030723
JP 2004070342	A	20040304	JP 2003-275219	20030716
JP 2004070343	A	20040304	JP 2003-275222	20030716
US 20060098316	A1	20060511	US 2005-520321 <--	20051027
PRIORITY APPLN. INFO.:			JP 2002-215169	A 20020724
			JP 2003-275219	A 20030716
			JP 2003-275222	A 20030716
			WO 2003-JP9344	W 20030723

ED Entered STN: 01 Feb 2004
 AB The invention relates to a green pigment for a color filter, which is capable of providing a color of color coordinates that cannot be provided by conventional green pigments, excellent in the coloring power of green, not so strong in the bluing effect, and has a high transmittance. By using such a green pigment, a photosensitive color composition for a color filter having a wide color reproduction range and a high transmittance, a pigment dispersion for a color filter, a color filter and a liquid crystal panel using such a color filter are also provided. The green pigment is a phthalocyanine green pigment, and can exhibits a color of a xy-coordinates region surrounded by certain equations 1, 2 and 3 on the XYZ chromaticity chart of CIE when measured alone using the F10 light source.
 IT 97626-82-9
 (green pigment for color filter, green pigment dispersion, photosensitive color composition, color filter, and liquid crystal panel)
 RN 97626-82-9 HCPLUS
 CN Zinc, bromo[29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,κN32]-, (SP-5-12)- (9CI) (CA INDEX NAME)



IC ICM G02B005-20

ICS G02B005-22; G02F001-1335; C09B047-10; G03F007-004

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 7726-95-6, Bromine, reactions 14320-04-8, Zinc phthalocyanine
97626-82-9(green pigment for color filter, green pigment dispersion,
photosensitive color composition, color filter, and liquid crystal panel)REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L42 ANSWER 3 OF 3 HCPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1985:478227 HCPLUS Full-text

DOCUMENT NUMBER: 103:78227

ORIGINAL REFERENCE NO.: 103:12483a,12486a

TITLE: Structure, spectra and conductivity of oxidized
zinc phthalocyanine single crystalsAUTHOR(S): Mossoyan-Deneux, M.; Benlian, D.; Ley, M.;
Pierrot, M.; Sorbier, J. P.; Fournel, A.

CORPORATE SOURCE: Lab. Chim. Coord., Marseille, 13397, Fr.

SOURCE: Molecular Crystals and Liquid Crystals (1985),
120(1-4), 437-40
CODEN: MCLCA5; ISSN: 0026-8941

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 07 Sep 1985

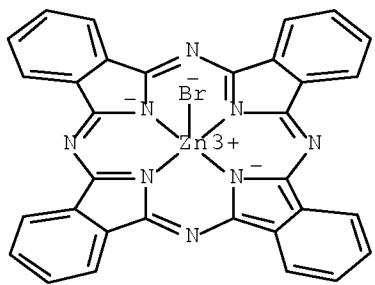
AB Pt-anode-grown ZnPcCl and ZnPcCl_xBr(1-x) (H₂Pc = phthalocyanine) crystals were
characterized by x-ray crystallog., IR absorption spectroscopy and elemental
x-ray anal. Their semiconductive properties are discussed on the basis of the
helical stack and intermol. overlaps between macrocyclic ligands.IT 97626-82-9DF, solid solns. with oxidized phthalocyanatozinc
chloride

(electrochem. preparation of, crystal structure and elec. conductivity and

IR spectra in relation to)

RN 97626-82-9 HCPLUS

CN Zinc, bromo[29H,31H-phthalocyaninato(2-)-
κN29,κN30,κN31,κN32]-, (SP-5-12)- (9CI) (CA
INDEX NAME)



CC 72-4 (Electrochemistry)

Section cross-reference(s): 73, 75, 76, 78

IT 53466-59-4DP, solid solns. with oxidized phthalocyanatozinc bromide

53466-59-4P 97626-82-9DP, solid solns. with oxidized
phthalocyanatozinc chloride

(electrochem. preparation of, crystal structure and elec. conductivity and

IR

spectra in relation to)

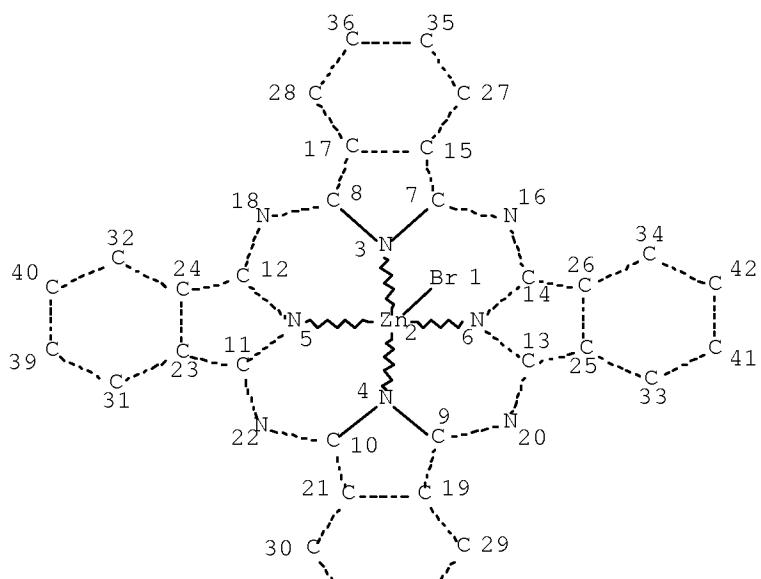
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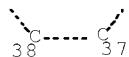
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L10     2 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L4
L11     1251 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L6
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Page 2-A

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DEFAULT ECLEVEL IS LIMITED

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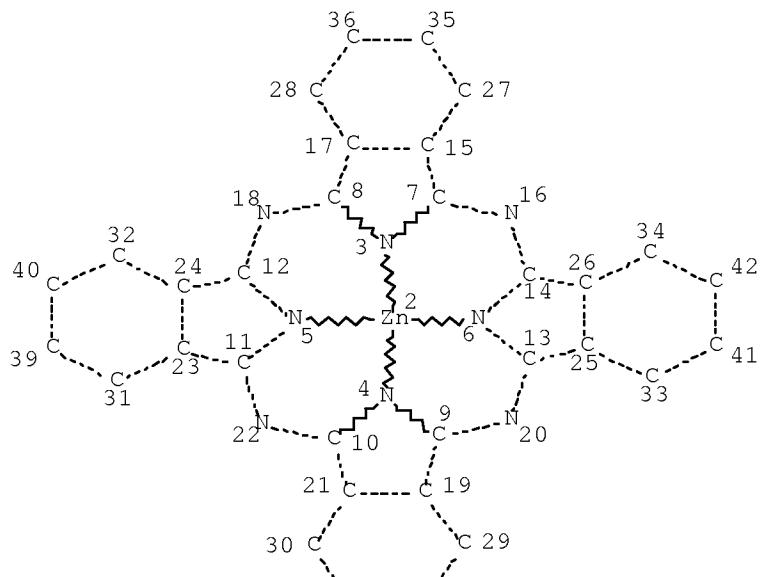
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NUMBER OF NODES IS 42

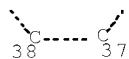
STEREO ATTRIBUTES: NONE

L25

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Page 1-A



Page 2-A

NODE ATTRIBUTES:

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 41

STEREO ATTRIBUTES: NONE

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0 SEA FILE-HCAT EUS SPE=ON ABB=ON PLU=ON 134 AND 111

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136 9 SEA FILE

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PIGMENT?
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17. SEE FILE HEADERS SPE ON ADD ON FEG ON EST AND GREEN PIGMENT?

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L-39 3 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L-33 AND GREEN

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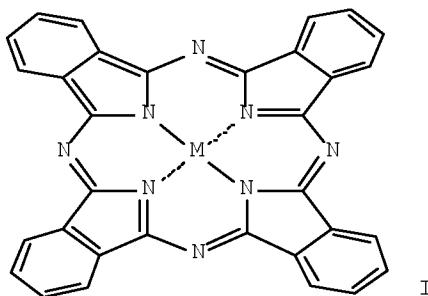
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OR BROMIN? OR IOD? OR FLUOR?)
L46 29 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L44 OR L45
L47 19 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L46 AND (1840-2003
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L47 ANSWER 1 OF 19 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:609159 HCAPLUS Full-text
DOCUMENT NUMBER: 143:123159
TITLE: Environmentally friendly green color filter with
good durability and coloring strength
INVENTOR(S): Nagata, Yoshiaki; Takei, Toshio
PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PRIORITY APPLN. INFO.:			JP 2003-429201	20031225
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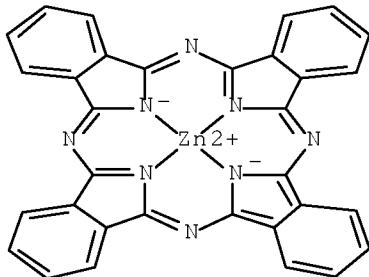
ED Entered STN: 14 Jul 2005
GI



AB The invention relates to a color filter comprising red, green, and blue color filter elements formed on a transparent substrate; wherein the green color filter element comprises tetrabenzoporphyrin metal complex (I) (M = divalent, trivalent, or tetravalent metal or 2 of H) such as zinc phthalocyanine.

IT 14320-04-8P
(green pigment; environmentally friendly green
color filter with good durability and coloring strength)

RN 14320-04-8 HCAPLUS
 CN Zinc, [29H,31H-phthalocyaninato(2-)-
 κN29,κN30,κN31,κN32]-, (SP-4-1)- (CA INDEX
 NAME)



IC ICM G02B005-20
 ICS C09B047-00
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 41
 IT 574-93-6P, Tetrabenzoporphyrazine 3317-67-7P, Cobalt phthalocyanine 14055-02-8P, Nickel phthalocyanine 14320-04-8P
 (green pigment; environmentally friendly green color filter with good durability and coloring strength)

L47 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2004:80982 HCAPLUS Full-text
 DOCUMENT NUMBER: 140:154571
 TITLE: Green pigment for color filter, green pigment dispersion, photosensitive color composition, color filter, and liquid crystal panel
 INVENTOR(S): Tatsuzawa, Masahiro; Sega, Shunsuke; Nishio, Akitaka; Kudou, Arata; Kiuchi, Eiichi; Katsume, Hiroshi
 PATENT ASSIGNEE(S): Dai Nippon Printing Co., Ltd., Japan; Dainippon Ink and Chemicals, Incorporated
 SOURCE: PCT Int. Appl., 80 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
WO 2004010172	A1	20040129	WO 2003-JP9344 <--	20030723
W: KR, US JP 2004070342	A	20040304	JP 2003-275219 <--	20030716
JP 2004070343	A	20040304	JP 2003-275222 <--	20030716
US 20060098316	A1	20060511	US 2005-520321 <--	20051027

PRIORITY APPLN. INFO.:

JP 2002-215169

A 20020724

<--

JP 2003-275219

A 20030716

<--

JP 2003-275222

A 20030716

<--

WO 2003-JP9344

W 20030723

<--

ED Entered STN: 01 Feb 2004

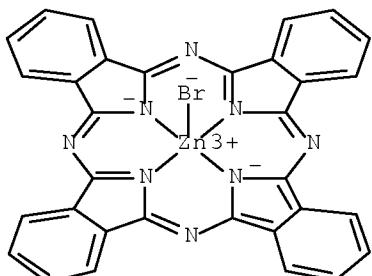
AB The invention relates to a green pigment for a color filter, which is capable of providing a color of color coordinates that cannot be provided by conventional green pigments, excellent in the coloring power of green, not so strong in the bluing effect, and has a high transmittance. By using such a green pigment, a photosensitive color composition for a color filter having a wide color reproduction range and a high transmittance, a pigment dispersion for a color filter, a color filter and a liquid crystal panel using such a color filter are also provided. The green pigment is a phthalocyanine green pigment, and can exhibits a color of a xy-coordinates region surrounded by certain equations 1, 2 and 3 on the XYZ chromaticity chart of CIE when measured alone using the F10 light source.

IT 97626-82-9

(green pigment for color filter, green pigment dispersion,
photosensitive color composition, color filter, and liquid crystal panel)

RN 97626-82-9 HCPLUS

CN Zinc, bromo[29H,31H-phthalocyaninato(2-)-
κN29,κN30,κN31,κN32]-, (SP-5-12)- (9CI) (CA
INDEX NAME)



IC ICM G02B005-20

ICS G02B005-22; G02F001-1335; C09B047-10; G03F007-004

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic
and Other Reprographic Processes)IT 7726-95-6, Bromine, reactions 14320-04-8, Zinc
phthalocyanine 97626-82-9

(green pigment for color filter, green pigment dispersion,
photosensitive color composition, color filter, and liquid crystal panel)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L47 ANSWER 3 OF 19 HCPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:738153 HCPLUS Full-text

DOCUMENT NUMBER: 140:153579

TITLE: Study of some novel metal-chelated and

brominated phthalocyanine dyes in relation
to their photo-physical properties

AUTHOR(S): Gan, Changsheng; Yan, Tiantang; Peng, Bixian

CORPORATE SOURCE: Sch. Chem. Mater. Sci., Univ. Sci. Technology of China, Hefei, 230026, Peop. Rep. China

SOURCE: Huaxue Wuli Xuebao (2003), 16(4), 293-298

CODEN: HWXUE4; ISSN: 1003-7713

PUBLISHER: Kexue Chubanshe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

ED Entered STN: 22 Sep 2003

AB Several kinds of novel tetra-substituted metal phthalocyanines have been synthesized, based on the precursor of 3-(2,4-ditert-pentylphenoxy)phthalonitrile. The central metals include lead, zinc, copper, nickel, manganese, cobalt and magnesium. These compds. are characterized by elemental anal., UV-Vis, IR and 1H-NMR. Some of them are selected to be further subjected to bromination. Through expts., we draw the conclusion that metalation of these phthalocyanines can influence their absorption wavelengths greatly. Most of the metal phthalocyanines are blue-shifted compared to that of free phthalocyanine. The film photo-absorption behavior is also investigated by spin-coating with Bu ether and the results show that there is a slight increase of absorption wavelength and the broadening of absorption bands. Under proper conditions, reacting some of these dyes with bromine can produce to a certain extent, bathochromic effect. The absorption wavelength of some of the brominated compds. is very close to that of laser used in the information technol. An attempt is made to correlate the structures of the metal-centered and brominated at-(2,4-ditert- pentylphenoxy) phthalocyanines with their photo-phys. properties. The nature of the effects of the substitution, central metals and bromination on Q-band absorption of these dyes are presented and discussed.

IT 652155-15-2P

(preparation and spectroscopic study of metal-chelated and brominated phthalocyanine dyes)

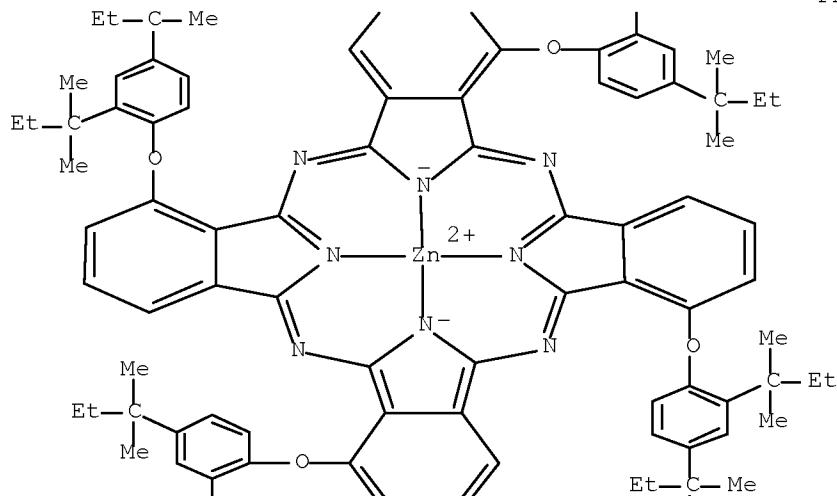
RN 652155-15-2 HCPLUS

CN Zinc, [1,8,15,22-tetrakis[2,4-bis(1,1-dimethylpropyl)phenoxy]-C,C,C,C-tetrabromo-29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,κN32]- (9CI) (CA INDEX NAME)

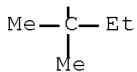
PAGE 1-A



PAGE 2-A



PAGE 3-A



4 (D1-Br)

CC 73-3 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 Section cross-reference(s): 41, 78

ST metal phthalocyanine dye prepn bromination UV IR proton NMR

IT UV and visible spectra
 (absorption, in CHCl₃ and films coated with Bu ether; of metal-chelated and brominated phthalocyanine dyes)

IT IR spectra
 (of metal-chelated and brominated phthalocyanine dyes)

IT Bromination

IT Metalation
 (preparation and spectroscopic study of metal-chelated and brominated phthalocyanine dyes)

IT Metallophthalocyanines
 (preparation and spectroscopic study of metal-chelated and brominated phthalocyanine dyes)

IT 651739-94-5P
 (preparation and spectroscopic study of metal-chelated and brominated phthalocyanine dyes)

IT 186415-98-5P 651739-93-4P 652133-38-5P 652133-39-6P
 652133-40-9P 652133-41-0P 652133-42-1P 652133-43-2P
 652155-09-4P 652155-11-8P 652155-13-0P 652155-15-2P
 (preparation and spectroscopic study of metal-chelated and
 brominated phthalocyanine dyes)
 IT 120-95-6, 2,4-Di-tert-pentylphenol 51762-67-5,
 1,2-Dicyano-3-nitrobenzene
 (preparation and spectroscopic study of metal-chelated and
 brominated phthalocyanine dyes)

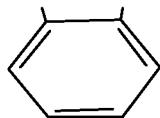
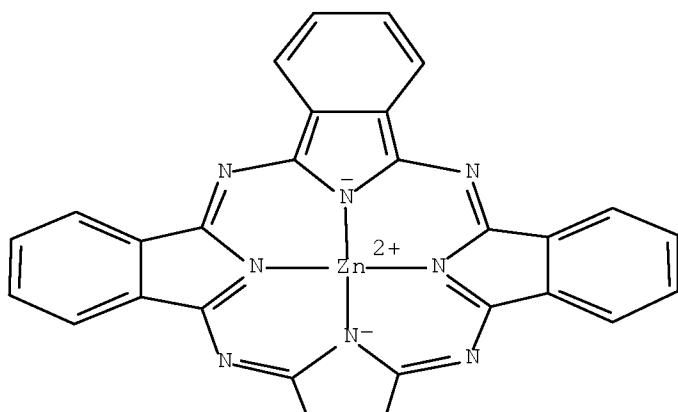
L47 ANSWER 4 OF 19 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2003:525534 HCPLUS Full-text
 DOCUMENT NUMBER: 139:102531
 TITLE: Ink-jet ink composition and color filter thereof
 INVENTOR(S): Tokuda, Hiroyuki; Katsume, Hiroshi; Araki, Shingo;
 Kishimoto, Masaaki; Yamaguchi, Yoshio
 PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003192947	A	20030709	JP 2001-393861	20011226 <--
PRIORITY APPLN. INFO.:			JP 2001-393861	20011226 <--

OTHER SOURCE(S): MARPAT 139:102531

ED Entered STN: 10 Jul 2003

AB Title inkjet ink composition comprises (A) a halogenated phthalocyanine pigment as an essential ingredient (e.g., zinc tridecabromodichloro phthalocyanine complex), (B) a polymer containing 2-oxo-1,3-dioxolane-4-yl groups and acidic groups (e.g., benzyl methacrylate-methacrylic acid-(2-oxo-1,3-dioxolan-4-yl)methyl methacrylate copolymer). The color filet comprises a substrate and a hardening coating film layer (obtained from the ink composition) coated on the substrate. The color filter exhibits high color purity, high color d., good transparency and heat resistance.
 IT 535965-46-9, Zinc tridecabromodichlorophthalocyanine complex (pigments; production of ink-jet ink composition for color filters)
 RN 535965-46-9 HCPLUS
 CN Zinc, [C,C,C,C,C,C,C,C,1,2,3,4-tridecabromo-C,C-dichloro-29H,31H- phthalocyaninato(2-)-κN29,κN30,κN31,κN32]- (9CI) (CA INDEX NAME)



2 (D1—Cl)

13 (D1—Br)

IC ICM C09D011-00
 ICS B41M005-00; C09B047-10; G02B005-20
 CC 42-12 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 74
 IT 535965-46-9, Zinc tridecabromodichlorophthalocyanine complex
 535965-47-0, Nickel tridecabromodichlorophthalocyanine complex
 872613-79-1, C. I. Pigment Yellow 150
 (pigments; production of ink-jet ink composition for color
 filters)

L47 ANSWER 5 OF 19 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2003:479041 HCPLUS Full-text
 DOCUMENT NUMBER: 139:60523
 TITLE: Color filters and pigmented resists therefor
 having high transparency and yellowish green color
 INVENTOR(S): Katsube, Hiroshi; Funakura, Shoji; Kiuchi, Eiichi;
 Kimura, Akira; Kudo, Arata; Kishimoto, Masaaki;
 Yamaguchi, Yoshio
 PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

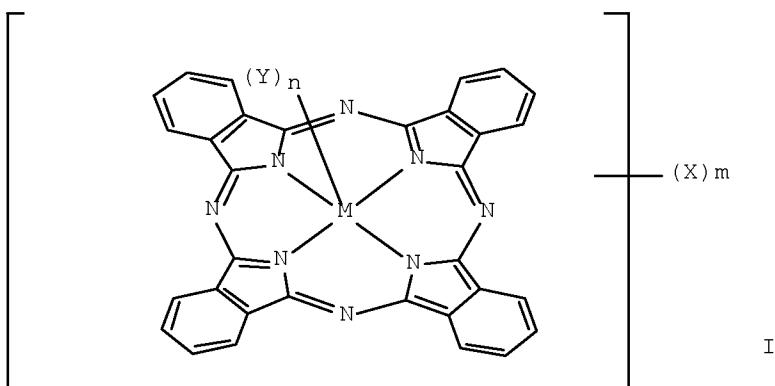
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003176423	A	20030624	JP 2001-378537	20011212
				<--
JP 2001-378537				20011212
				<--

PRIORITY APPLN. INFO.: MARPAT 139:60523

ED Entered STN: 24 Jun 2003

GI

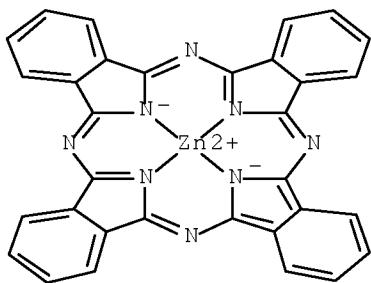


AB The resists contain organic green pigments comprising halometalophthalocyanine I (M = Al, Si, Sc, Ti, V, Mg, Fe, Co, Ni, Zn, Ga, Ge, Y, Zr, Nb, In, Sn, Pb; X = F, Cl, Br, I; m = 8-16 integer; Y = F, Cl, Br, I, O, OH, SO₄; n = 0-2 integer) and long-alk(en)yl monocarboxylates.

IT 14320-04-8DP, Zinc phthalocyanine, brominated, chlorinated
(transparent yellowish green resists containing heterometalophthalocyanine pigments for color filters)

RN 14320-04-8 HCAPLUS

CN Zinc, [29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,κN32]-, (SP-4-1)- (CA INDEX NAME)

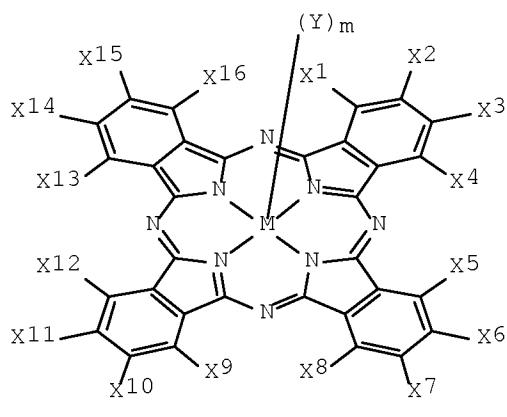


IC ICM C09B067-20
 ICS G02B005-20
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38, 41, 73
 ST color filter yellowish green heterometallophtalocyanine pigment;
 transparent bright green color filter phthalocyanine pigment;
 brominated chloroaluminum phthalocyanine pigment yellowish green
 IT 14154-42-8DP, brominated, chlorinated 14320-04-8DP
 , Zinc phthalocyanine, brominated, chlorinated
 210117-83-2P, Aronix M 7100-Kayarad DPFA copolymer
 (transparent yellowish green resists containing
 heterometallophtalocyanine pigments for color filters)

L47 ANSWER 6 OF 19 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2003:452087 HCAPLUS Full-text
 DOCUMENT NUMBER: 139:28689
 TITLE: Color filters and their photopolymerizable resin compositions having high purity and density of color
 INVENTOR(S): Yonehara, Yoshitomo; Sato, Shigeo; Wakita, Masanori; Katsube, Hiroshi; Araki, Shingo; Kishimoto, Masaaki; Yamaguchi, Yoshio
 PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003167113	A	20030613	JP 2001-366491 <--	20011130
PRIORITY APPLN. INFO.:			JP 2001-366491 <--	20011130

OTHER SOURCE(S): MARPAT 139:28689
 ED Entered STN: 13 Jun 2003
 GI



AB The compns. contain halogenated phthalocyanine I ($M = Al, Si, Sc, Ti, V, Fe, Co, Ni, Zn, Ga, Ge, Y, Zr, Nb, In, Sn, Pb, \text{ or two H}; X1-X16 = H, F, Cl, Br, I, O, OH; m = 0-2$), satisfying total halo number of 8-16; $Y = F, Cl, Br, I, O, OH$; $m = 0-2$), carboxyl- or phenolic OH-containing aminoplasts, and photopolymerizable monomers [e.g., (meth)acrylic derivs. or maleimide derivs.]. The aminoplasts may be (i) condensates of (4,6-diamino-1,3,5-triazin-2-yl)benzoic acid (I) and HCHO, glyoxylic acid (II), succinic semialdehyde (III), and/or hydroxybenzaldehyde (IV) or (ii) condensates of triazine derivs. (e.g., melamine, benzoguanamine, and/or I) and aldehydes (e.g., II, III, and/or IV). Color filters from the compns. exhibit excellent durability such as heat and chemical resistance.

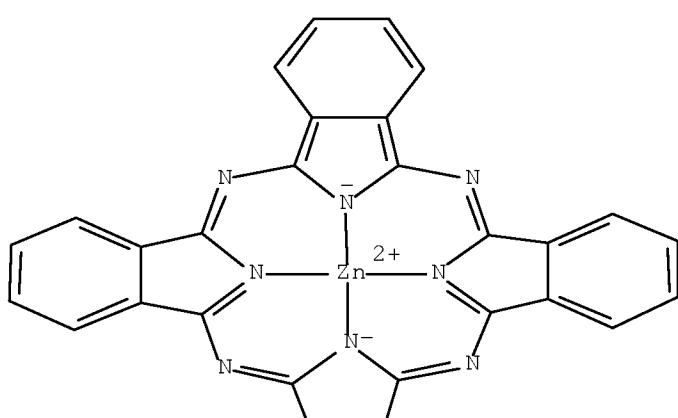
IT 535965-46-9

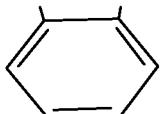
(pigments; pigmented photopolymerizable resin compns. having high purity and d. of color and color filters therefrom)

RN 535965-46-9 HCAPLUS

CN Zinc, [C,C,C,C,C,C,C,C,1,2,3,4-tridecabromo-C,C-dichloro-29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,κN32]- (9CI) (CA INDEX NAME)

PAGE 1-A





2 (D1—Cl)

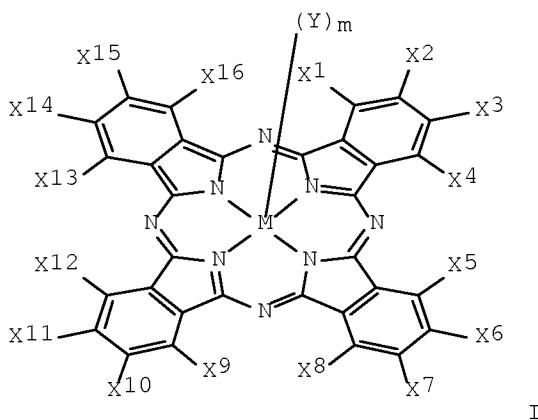
13 (D1—Br)

IC ICM G02B005-20
 ICS C08G012-30; G03F007-004; G03F007-027; G03F007-032; G03F007-40
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reproductive Processes)
 Section cross-reference(s): 38, 42, 73
 ST zinc halophthalocyanine **pigmented** color filter compn; nickel
 halophthalocyanine photopolymerizable color filter compn;
 benzoguanamine glyoxylic acid aminoplast color filter
 IT Aminoplasts
 (binders; **pigmented** photopolymerizable resin compns.
 having high purity and d. of color and color filters therefrom)
 IT Liquid crystal displays
 (for touch panels; **pigmented** photopolymerizable resin
 compns. having high purity and d. of color and color filters
 therefrom)
 IT Optical filters
 (**pigmented** photopolymerizable resin compns. having high
 purity and d. of color and color filters therefrom)
 IT 181779-99-7P, 2-(4,6-Diamino-1,3,5-triazin-2-yl)benzoic
 acid-formaldehyde copolymer 389092-23-3P, Benzoguanamine-glyoxylic
 acid copolymer 389092-24-4P, Benzoguanamine-p-hydroxybenzaldehyde
 copolymer
 (binders; **pigmented** photopolymerizable resin compns.
 having high purity and d. of color and color filters therefrom)
 IT 67653-78-5P, Dipentaerythritol hexaacrylate homopolymer
 (**pigmented** photopolymerizable resin compns. having high
 purity and d. of color and color filters therefrom)
 IT 535965-46-9 535965-47-0
 (pigments; **pigmented** photopolymerizable resin
 compns. having high purity and d. of color and color filters
 therefrom)

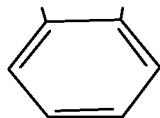
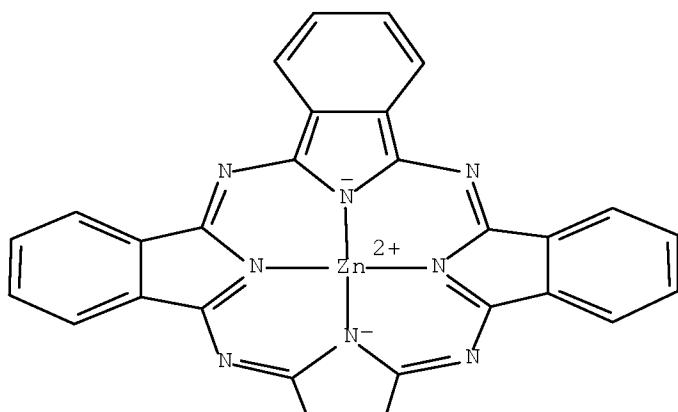
L47 ANSWER 7 OF 19 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2003:432952 HCPLUS Full-text
 DOCUMENT NUMBER: 139:15042
 TITLE: **Green pigment dispersion**
 compositions with high color purity and density,
 their photoimaging resists, and color filters

using them
 INVENTOR(S): Yamaguchi, Yoshio; Araki, Shingo; Kishimoto, Masaaki; Katsume, Hiroshi
 PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003161828	A	20030606	JP 2002-80723 <--	20020322
PRIORITY APPLN. INFO.:			JP 2001-281041 <--	A 20010917
OTHER SOURCE(S): MARPAT 139:15042				
ED Entered STN: 06 Jun 2003				
GI				



AB The compns. contain yellow pigments and halogenated metal phthalocyanines (I; M = Al, Si, Ti, V, Fe, Co, Ni, Zn, Ga, Ge, Y, Zr, Nb, In, Sn, Pb; X1-16 = H, F, Cl, Br, I; number of H for X = 0-8; Y = F, Cl, Br, I, O; m = 0-2).
 IT 535965-46-9
 (dispersions of green pigment halogenated metal phthalocyanines with high color purity and d. for photoimaging materials to manufacture color filters)
 RN 535965-46-9 HCPLUS
 CN Zinc, [C,C,C,C,C,C,C,C,1,2,3,4-tridecabromo-C,C-dichloro-29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,κN32]- (9CI) (CA INDEX NAME)



2 (D1—Cl)

13 (D1—Br)

IC ICM G02B005-22
 ICS C09B067-46; C09D017-00; G02B005-20; G03F007-004
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 41
 ST green pigment phthalocyanine dispersion color filter; halogenated metal phthalocyanine green color filter display
 IT Disperse systems
 Optical filters
 Photoimaging materials
 (dispersions of green pigment halogenated metal phthalocyanines with high color purity and d. for photoimaging materials to manufacture color filters)
 IT Pigments, nonbiological
 (green; dispersions of green pigment halogenated metal phthalocyanines with high color purity and d. for photoimaging materials to manufacture color filters)
 IT 535965-46-9 535965-47-0 872613-79-1, C.I. Pigment
 Yellow 150

(dispersions of green pigment halogenated metal phthalocyanines with high color purity and d. for photoimaging materials to manufacture color filters)

IT 29570-58-9, Dipentaerythritol hexaacrylate 500199-96-2, Excedic LC 295
 (photoimaging materials; dispersions of green pigment halogenated metal phthalocyanines with high color purity and d. for photoimaging materials to manufacture color filters)

L47 ANSWER 8 OF 19 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2002:927435 HCPLUS Full-text

DOCUMENT NUMBER: 138:10901

TITLE: Substituted di(hydroxy/alkoxy)silicon phthalocyanines and their uses

INVENTOR(S): Cook, Michael John; Fernandes, Isabelle

PATENT ASSIGNEE(S): Gentian AS, Norway

SOURCE: PCT Int. Appl., 122 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002096913	A1	20021205	WO 2002-GB2465	20020524 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002256821	A1	20021209	AU 2002-256821	20020524 <--
PRIORITY APPLN. INFO.:			GB 2001-12875	A 20010525 <--
			GB 2001-14398	A 20010613 <--
			WO 2002-GB2465	W 20020524 <--

OTHER SOURCE(S): MARPAT 138:10901

ED Entered STN: 06 Dec 2002

AB This invention relates to certain substituted di(hydroxy/alkoxy)silicon phthalocyanines and certain uses thereof, in particular their uses in photodynamic therapy and in photodiagnosis. For example, SiL(OH)2 (H2L = 1,4-dibutoxy-2,3-bis(m-methoxyphenyl)-8,11,15,18,11,25-hexa(decyl)phthalocyanine) was prepared by the reaction of HSiCl3 and H2L, prepared from 3,6-dibutoxy-4,5-bis(m-methoxyphenyl)phthalonitrile and 3,6-dihexylphthalocyanine. The fluorescence quantum yields of the Si and Zn substituted phthalocyanine complexes were determined. The use of these complexes was demonstrated for the photodiagnosis and photodynamic therapy of various diseases.

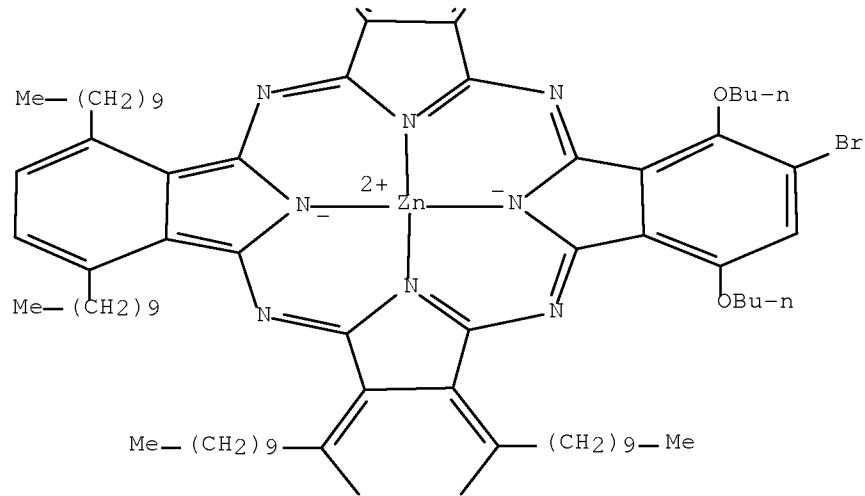
IT 344453-66-3P
 (preparation and fluorescence quantum yield and use in

photodynamic therapy and photodiagnosis)
RN 344453-66-3 HCPLUS
CN Zinc, [2-bromo-1,4-dibutoxy-8,11,15,18,22,25-hexakis(decyl)-29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,κN32]-,
(SP-4-2)- (9CI) (CA INDEX NAME)

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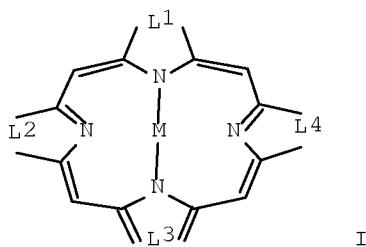
PAGE 3-A

IC ICM C07F007-02
 ICS A61K031-695; A61P029-02; A61P035-00; A61P043-00
 CC 78-7 (Inorganic Chemicals and Reactions)
 Section cross-reference(s): 1, 8, 28, 74
 IT Metallophthalocyanines
 (preparation and fluorescence quantum yield and use in photodynamic therapy and photodiagnostics)
 IT 138497-20-8P 138497-21-9P 138497-23-1P 138497-25-3P
 (fluorescence quantum yield and use in photodynamic therapy and photodiagnostics)
 IT 476436-51-8P
 (preparation and fluorescence quantum yield and use in photodynamic therapy and photodiagnostics)
 IT 344453-66-3P 344453-93-6P 476436-05-2P 476436-06-3P
 476436-07-4P 476436-08-5P 476436-09-6P 476436-10-9P
 476436-11-0P 476436-12-1P 476436-13-2P 476436-14-3P
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 476436-29-0P 476436-30-3P 476436-32-5P 476436-33-6P
 476436-34-7P
 (preparation and fluorescence quantum yield and use in photodynamic therapy and photodiagnostics)
 IT 71-36-3, 1-Butanol, reactions 76-09-5, Pinacol 98-80-6,
 Phenylboronic acid 110-89-4, Piperidine, reactions 124-63-0,
 Methanesulfonyl chloride 143-10-2, Decanethiol 288-32-4,
 Imidazole, reactions 358-23-6, Trifluoromethanesulfonic anhydride
 375-72-4, Nonfluorobutanesulfonyl fluoride 542-69-8, 1-
 Iodobutane 556-03-6, Tyrosine 557-34-6, Zinc acetate
 629-05-0, 1-Octyne 688-74-4, Tributoxyboron 872-05-9, 1-Decene
 1018-79-7, 2,3-Dicyano-1,4-dihydroxynaphthalene 1322-36-7,
 Dodecanethiol 1692-15-5, 4-Pyridylboronic acid 2050-77-3, 1-
 Iododecane 3282-30-2, Pivaloyl chloride 4733-50-0,
 2,3-Dicyanohydroquinone 5720-07-0, 4-Methoxyphenylboronic acid
 6165-68-0, 2-Thiopheneboronic acid 7440-66-6, Zinc, reactions
 7786-30-3, Magnesium chloride, reactions 10025-78-2, Trichlorosilane
 10365-98-7, 3-Methoxyphenylboronic acid 14047-29-1,
 4-Carboxyphenylboronic acid 15854-87-2, 4-Iodopyridine
 28611-39-4, (4-Dimethylaminophenyl)boronic acid 59016-93-2,
 4-(Hydroxymethylphenyl)boronic acid 89343-06-6 89415-43-0,
 4-Aminophenylboronic acid 92511-12-1 128912-47-0 135579-83-8,
 6-Chlorohexylzinc bromide 152329-33-4 155589-48-3 189068-39-1
 476436-41-6 476436-48-3 476436-53-0
 (preparation of substituted phthalocyanines and their metal complexes)
 REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L47 ANSWER 9 OF 19 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2002:503746 HCPLUS Full-text
 DOCUMENT NUMBER: 137:86005
 TITLE: Phthalocyanines and their use in recording layers
 of optical recording media
 INVENTOR(S): Kiyono, Kazuhiro; Nakagawa, Shinichi; Misawa,
 Tsutayoshi
 PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan; Yamamoto Chemicals
 Inc.
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent

LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002188018	A	20020705	JP 2000-386988 <--	20001220
PRIORITY APPLN. INFO.:			JP 2000-386988 <--	20001220
OTHER SOURCE(S): MARPAT 137:86005				
ED Entered STN: 05 Jul 2002				
GI				

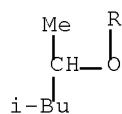
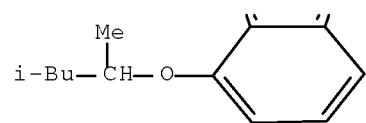
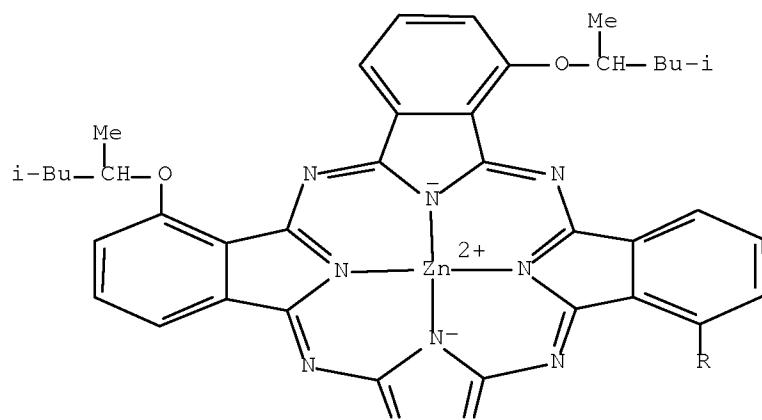


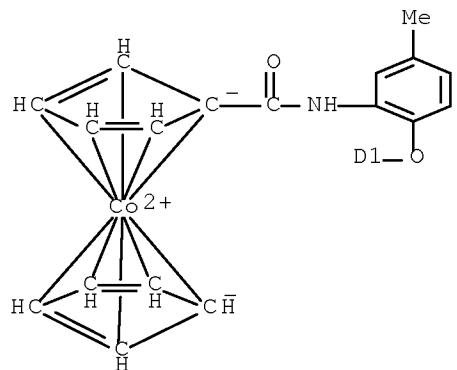
AB The phthalocyanines are shown as I [M = two H, divalent metal, tri- or tetravalent substituted metal, oxymetal; L1-L4 = II, III; at least one of L1-L4 = II; X = (un)substituted C1-10 linear or branched alkyl(thio), (un)substituted C1-15 linear or branched alkoxy; Y = H, NO₂, halo; A = metal compound residue; B = group for linking phthalocyanines and A]. The media, e.g., write-once read-many disk of CD-R (CD-recordable), show high sensitivity in high-speed high-d. recording and improved jitter and deviation characteristics.

IT 440368-01-4 440368-02-5
 (phthalocyanines and their use in recording layers of optical recording media)

RN 440368-01-4 HCPLUS

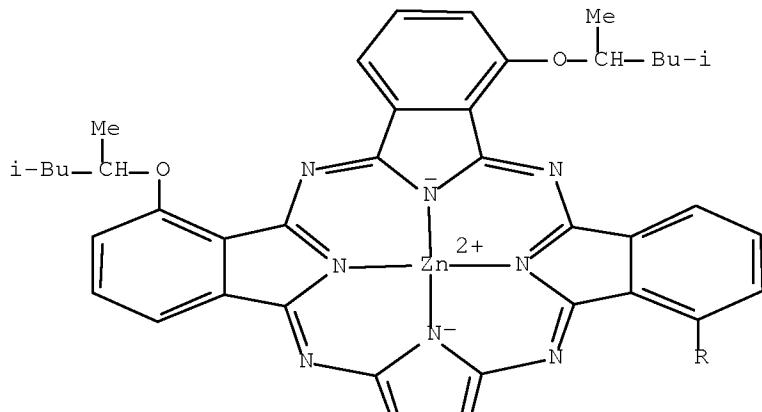
CN Zinc, [[[5-methyl-2-[[C,C,C-tribromo-1,8,15,22-tetrakis(1,3-dimethylbutoxy)-29H,31H-phthalocyanin-C-yl-
 κN29,κN30,κN31,κN32]oxy]phenyl]amino]carbonyl] cobaltocenato(2-)]- (9CI) (CA INDEX NAME)

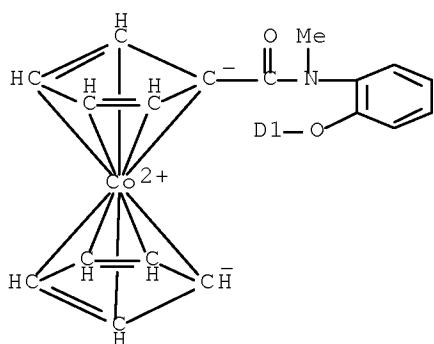
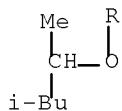
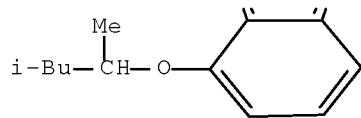




3 (D1-Br)

RN 440368-02-5 HCAPLUS
 CN Zinc, [[[methyl[2-[[C,C,C-tribromo-1,8,15,22-tetrakis(1,3-dimethylbutoxy)-29H,31H-phthalocyanin-C-yl-
 κN29,κN30,κN31,κN32]oxy]phenyl]amino]carbonyl]
 cobaltocenato(2-)]- (9CI) (CA INDEX NAME)





3 (D1-Br)

IC ICM C09B047-18
 ICS B41M005-26; C09B047-20; G11B007-24; C07F015-02; C07F015-04;
 C07F017-02
 CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic
 and Other Reprographic Processes)
 Section cross-reference(s): 28, 29, 41, 73
 IT 112397-39-4P 415900-78-6P 440364-67-0P 440364-68-1P
 440368-16-1P 440368-17-2DP, brominated 440368-18-3DP,
 chlorinated 440368-18-3P 440368-19-4P 440368-20-7P
 (phthalocyanines and their use in recording layers of optical
 recording media)
 IT 440367-96-4 440367-99-7 440368-00-3 440368-01-4
 440368-02-5 440368-03-6 440368-06-9 440368-08-1
 440368-09-2 440368-11-6 440368-12-7 440368-14-9 440368-15-0
 (phthalocyanines and their use in recording layers of optical
 recording media)

L47 ANSWER 10 OF 19 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2002:379336 HCPLUS Full-text
 DOCUMENT NUMBER: 137:225699
 TITLE: Synthesis of symmetrically substituted
 octabromophthalocyanine pigments and

their characterization

AUTHOR(S):

Venugopala Reddy, K. R.; Keshavayya, J.

CORPORATE SOURCE:

Department of Studies in Industrial Chemistry,
Kuvempu University, Karnataka, 577 451, India

SOURCE:

Dyes and Pigments (2002), 53(3), 187-194

CODEN: DYPIDX; ISSN: 0143-7208

PUBLISHER:

Elsevier Science Ltd.

DOCUMENT TYPE:

Journal

LANGUAGE:

English

OTHER SOURCE(S):

CASREACT 137:225699

ED Entered STN: 22 May 2002

AB A convenient and a simple route was suggested for the synthesis of sym. substituted metal(II) 1,3,8,10,15,17,22,24-octabromophthalocyanine pigments (MPOBr), of Co (CoPOBr), Ni (NiPOBr), Cu (CuPOBr) and Zn (ZnPOBr). MPOBr's were synthesized from the corresponding octaaminocsubstituted metal phthalocyanines, MPOA's. Synthesized complexes were studied by elemental anal., electronic spectra, IR spectra, magnetic susceptibility measurements, powder XRD and thermogravimetric studies to evaluate the thermal stability, crystallinity, structural integrity and purity of the complexes. The effects of substituents on the electronic spectra and the orbital contribution to the magnetic moments over a range of field strengths are discussed.

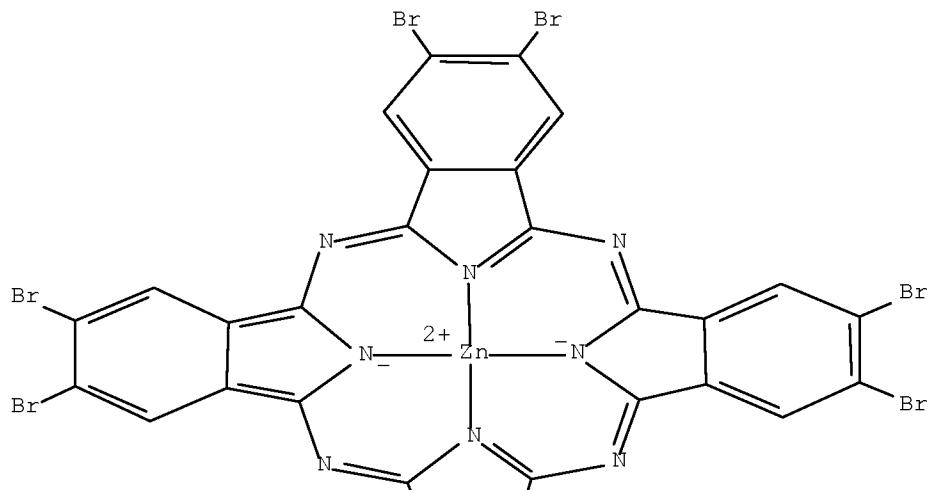
IT 455284-04-58

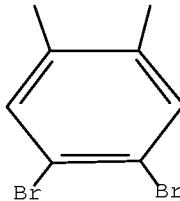
(preparation, magnetic properties, thermal stability and XRD of)

RN 455284-04-5 HCPLUS

CN Zinc, [2,3,9,10,16,17,23,24-octabromo-29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,κN32]-, (SP-4-1)- (9CI) (CA
INDEX NAME)

PAGE 1-A





CC 78-7 (Inorganic Chemicals and Reactions)
 Section cross-reference(s): 75, 77
 IT 455283-98-4P 455284-00-1P 455284-02-3P 455284-04-5P
 (preparation, magnetic properties, thermal stability and XRD of)
 REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L47 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2001:435186 HCAPLUS Full-text
 DOCUMENT NUMBER: 135:55020
 TITLE: Substituted phthalocyanines and their precursors
 INVENTOR(S): Cook, Michael John; Heeney, Martin James
 PATENT ASSIGNEE(S): Gentian AS, Norway
 SOURCE: PCT Int. Appl., 146 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001042368	A1	20010614	WO 2000-GB4708	20001208 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2394891	A1	20010614	CA 2000-2394891	20001208 <--
EP 1238016	A1	20020911	EP 2000-985506	20001208 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003516421	T	20030513	JP 2001-543656	20001208 <--
EE 200200298	A	20030815	EE 2002-298	20001208 <--
HU 2003001099	A2	20030828	HU 2003-1099	20001208 <--
HU 2003001099	A3	20031128		

NO 2002002663

A

20020808

NO 2002-2663

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20020605

PRIORITY APPLN. INFO.:

GB 1999-29064

A 19991208

<--

GB 2000-12348

A 20000522

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GB 2000-25817

A 20001020

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WO 2000-GB4708

W 20001208

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OTHER SOURCE(S): MARPAT 135:55020

ED Entered STN: 15 Jun 2001

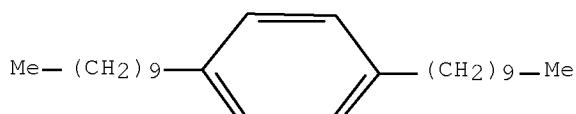
AB Process is claimed for the preparation of metal phthalocyanines and their precursors including phthalonitrile sulfonate esters, substituted phthalonitriles and substituted phthalocyanines, phthalonitrile halides. For example 3,6-didecylphthalonitrile was prepared from 3,6-bis(trifluoromethanesulfonyloxy)phthalonitrile and decylzinc iodide and reacted with 4,5-dibromo-3,6-dibutoxyphthalonitrile, prepared from bromination of 2,3-dicyanohydroquinone, in presence of Ni(OAc)₂·4H₂O to give [1,4-dibutoxy-2,3-dibromo-8,11,15,18,22,25-hexadecylphthalocyaninato]nickel. The metal phthalocyanine derivs. have applications as photosensitizers for use in photodynamic therapy.

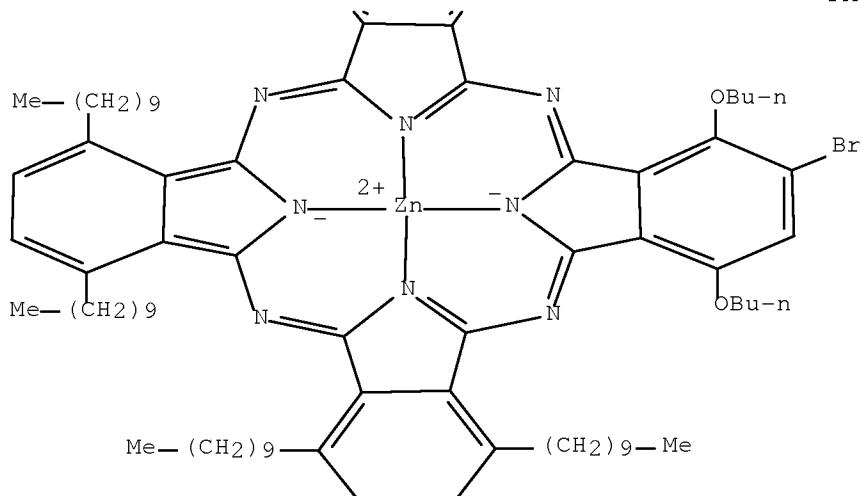
IT 344453-66-3P
(preparation and photophysics and reaction with methylbutynol)

RN 344453-66-3 HCPLUS

CN Zinc, [2-bromo-1,4-dibutoxy-8,11,15,18,22,25-hexakis(decyl)-29H,31H-phthalocyaninato(2-)·κN29,κN30,κN31,κN32]-,
(SP-4-2)- (9CI) (CA INDEX NAME)

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IC ICM C09B047-067
 ICS C09B047-04; C07D487-22; A61K041-00; C07D487-22; C07D259-00;
 C07D209-00; C07D209-00; C07D209-00; C07D209-00

CC 78-7 (Inorganic Chemicals and Reactions)
 Section cross-reference(s): 8, 28, 63, 74

IT 311-28-4, Tetrabutylammonium iodide 603-35-0,
 Triphenylphosphine, uses 7647-10-1, Palladium dichloride
 13965-03-2, Dichlorobis(triphenylphosphine)palladium 14221-01-3,
 Tetrakis(triphenylphosphine)palladium 14264-16-5,
 Dichlorobis(triphenylphosphine)nickel 51364-51-3, Pd2(dba)3
 (for preparation of metal phthalocyanine complexes for use in
 photodynamic therapy and as photosensitizers)

IT 344453-66-3P
 (preparation and photophysics and reaction with methylbutynol)

IT 288-32-4, Imidazole, reactions 358-23-6, Trifluoromethanesulfonic
 anhydride 375-72-4, Nonafluorobutanesulfonyl fluoride
 1018-79-7, 2,3-Dicyano-1,4-dihydroxynaphthalene 2050-77-3, 1-
 Iododecane 4733-50-0, 2,3-Dicyanohydroquinone 131379-39-0
 135579-83-8 155589-48-3 344453-19-6
 (reactant for preparation of metal phthalocyanine complexes as
 photosensitizers and use in photodynamic therapy)

IT 98-80-6, Phenylboronic acid 110-89-4, Piperidine, reactions
 112-55-0, 1-Dodecanethiol 115-19-5, 2-Methyl-3-butyn-2-ol
 124-63-0, Methanesulfonyl chloride 301-04-2, Lead diacetate
 629-05-0, 1-Octyne 688-74-4, Tributoxyboron 872-05-9, 1-Decene
 994-89-8, Tributyl(ethynyl)tin 1066-54-2, Trimethylsilylacetylene
 3282-30-2, Pivaloyl chloride 5720-07-0, 4-Methoxyphenylboronic acid
 5970-45-6, Zinc acetate dihydrate 6018-89-9, Nickel diacetate
 tetrahydrate 6165-68-0, 2-Thiopheneboronic acid 7699-45-8, Zinc
 bromide 7786-30-3, Magnesium chloride, reactions 10025-82-8,
 Indium trichloride 10365-98-7, 3-Methoxyphenylboronic acid
 14047-29-1, p-Carboxyphenylboronic acid 15854-87-2, 4-

Iodopyridine 18869-47-1, DL-Tyrosine methyl ester
 28611-39-4, 4-Dimethylaminophenylboronic acid 59016-93-2,
 4-(Hydroxymethyl)phenylboronic acid 89343-06-6,
 Triisopropylsilylacetylene 89415-43-0, p-Aminophenylboronic acid
 92511-12-1 189068-39-1
 (reactant for preparation of metal phthalocyanine complexes for use in
 photodynamic therapy and as photosensitizers)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L47 ANSWER 12 OF 19 HCPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1996:720831 HCPLUS Full-text

DOCUMENT NUMBER: 126:82058

ORIGINAL REFERENCE NO.: 126:15719a,15722a

TITLE: Photoinduced intramolecular electron transfer in
 an oblique zinc phthalocyanine - viologen linked
 system

AUTHOR(S): Tian, Hong Jian; Zhou, Qing Fu; Xu, Hui Jun

CORPORATE SOURCE: Institute Photographic Chemistry, Academia Sinica,
 Beijing, 100101, Peop. Rep. China

SOURCE: Chinese Chemical Letters (1996), 7(10),
 931-934

CODEN: CCLEE7

PUBLISHER: Chinese Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 07 Dec 1996

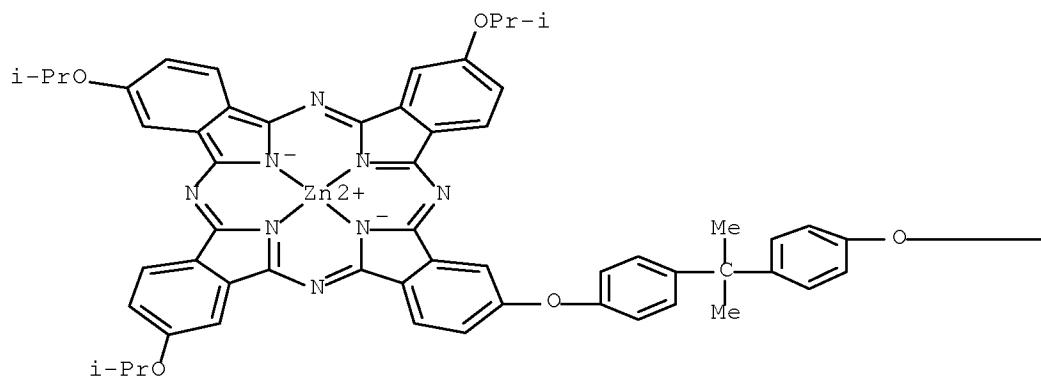
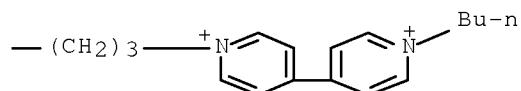
AB The spectroscopic properties and photoinduced electron transfer process have
 been studied in zinc phthalocyanine - viologen system with bisphenol A
 (ZnPcAV2⁺). It was found that the excited singlet state of zinc
 phthalocyanine moiety is quenched and the fluorescence lifetime is reduced by
 the linked viologen. Nanosecond laser photolysis studies showed that intramol.
 quenching of the excited triplet state of zinc phthalocyanine moiety by the
 attached viologen occurred giving reduced viologen radical ion (V⁺) that
 survived over 50 μ s.

IT 185381-75-3

(photoinduced intramol. electron transfer in zinc
 phthalocyanine-viologen system)

RN 185381-75-3 HCPLUS

CN Zinc(2+), [1-butyl-1'-(3-[4-[1-methyl-1-[4-[[9,16,23-tris(1-
 methylethoxy)-29H,31H-phthalocyanin-2-yl-
 κN29,κN30,κN31,κN32]oxy]phenyl]ethyl]phenoxy]p
 ropyl]-4,4'-bipyridiniumato(2-)]-, dibromide, (SP-4-2)- (9CI) (CA
 INDEX NAME)

●2 Br⁻

CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Flash photolysis

Fluorescence quenching

Photoinduced electron transfer

(photoinduced intramol. electron transfer in zinc phthalocyanine-viologen system)

IT 185381-75-3 185381-79-7

(photoinduced intramol. electron transfer in zinc phthalocyanine-viologen system)

L47 ANSWER 13 OF 19 HCPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1996:643723 HCPLUS Full-text

DOCUMENT NUMBER: 125:288889

ORIGINAL REFERENCE NO.: 125:53791a, 53794a

TITLE: Phthalocyanine compound and optical recording medium using same

INVENTOR(S): Nishimoto, Taizo; Misawa, Tsutayoshi; Sugimoto, Kenichi; Tsuda, Takeshi; Takuma, Hirosuke

PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Japan; Yamamoto Chemicals Inc.; Mitsui Chemicals Inc.

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

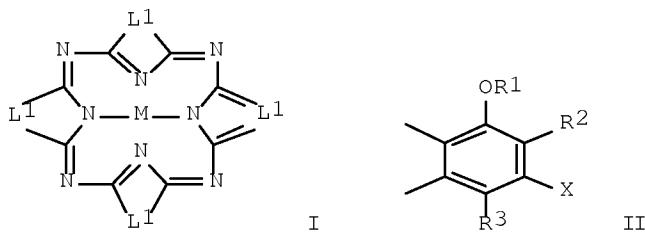
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08193170	A	19960730	JP 1995-5639 -->	19950118
JP 3604439	B2	20041222	JP 1995-5639 -->	19950118
PRIORITY APPLN. INFO.:				

OTHER SOURCE(S): MARPAT 125:288889

ED Entered STN: 01 Nov 1996
GI



AB The title compound has a formula I ($M = 2$ H, divalent metal, trivalent 1-substituted metal, tetravalent 2-substituted metal, oxy metal; $L1 = Q$; $OR1$ $C1-20$ alkoxy; $R2 = C3-20$ alkyl or alkenyl substituted with 1-4 halo; $X =$ halo). The recording medium using the above phthalocyanine compound is also claimed. The recording medium comprises a phthalocyanine compound-containing recording layer, a Au or Al-based reflection layer and a protection layer. The recording medium can be used for high speed and high-d. recording with superior sensitivity, recording characteristics, and storage stability.

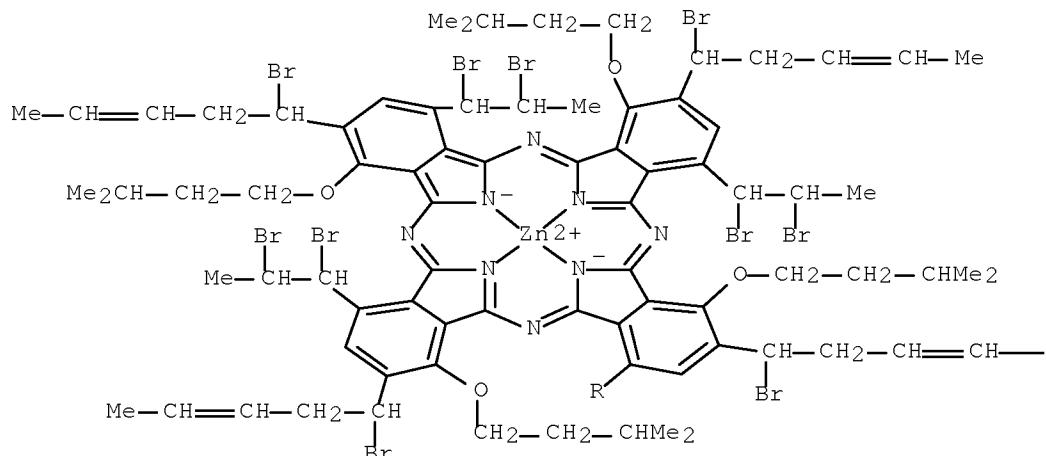
IT 182495~09~6

(for optical recording material)

RN 182495-09-6 HCAPLUS

CN Zinc, [2,9,16,23-tetrakis(1-bromo-3-pentenyl)-4,11,18,25-tetrakis(1,2-dibromopropyl)-1,8,15,22-tetrakis(3-methylbutoxy)-29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

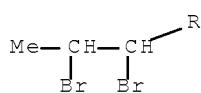
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PAGE 2-A



IC ICM C09B047-18
 ICS B41M005-26; C07D487-22; G11B007-24
 CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic
 and Other Reprographic Processes)
 IT 182495-04-1D, brominated derivs. 182495-05-2D,
 brominated derivs. 182495-06-3D, chlorinated
 derivs. 182495-07-4D, brominated derivs. 182495-08-5D,
 brominated derivs. 182495-09-6 182495-10-9D,
 brominated derivs. 182495-11-0D, chlorinated

derivs. 182495-12-1D, chlorinated derivs. 182495-13-2D,
 brominated derivs. 182495-14-3D, brominated
 derivs.

IT (for optical recording material)
 182494-98-0DP, brominated derivs. 182494-99-1DP,
 brominated derivs. 182495-00-7DP, brominated
 derivs. 182495-01-8DP, brominated derivs. 182495-03-0DP,
 brominated and chlorinated derivs.
 (prepared for optical recording material)

L47 ANSWER 14 OF 19 HCPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1995:362934 HCPLUS Full-text

DOCUMENT NUMBER: 123:212821

ORIGINAL REFERENCE NO.: 123:37649a,37652a

TITLE: Photoinduced intramolecular electron transfer and
 charge separation in zinc phthalocyanine-viologen
 linked system

AUTHOR(S): Shen, Shu-Yin; Liu, Ji-Xiang; Zhou, Qing-Fu; Xu,
 Hui-Jun; Takanae, N.; Kuriyama, Y.; Sakurai, H.;
 Tokumaru, Y.

CORPORATE SOURCE: Institute Photographic Chemistry, Chinese Academy
 Sciences, Beijing, 100101, Peop. Rep. China

SOURCE: Chinese Journal of Chemistry (1995),
 13(1), 33-9

CODEN: CJOCEV; ISSN: 1001-604X

PUBLISHER: Science Press

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 21 Feb 1995

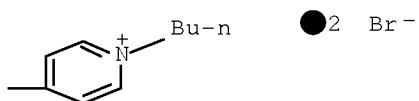
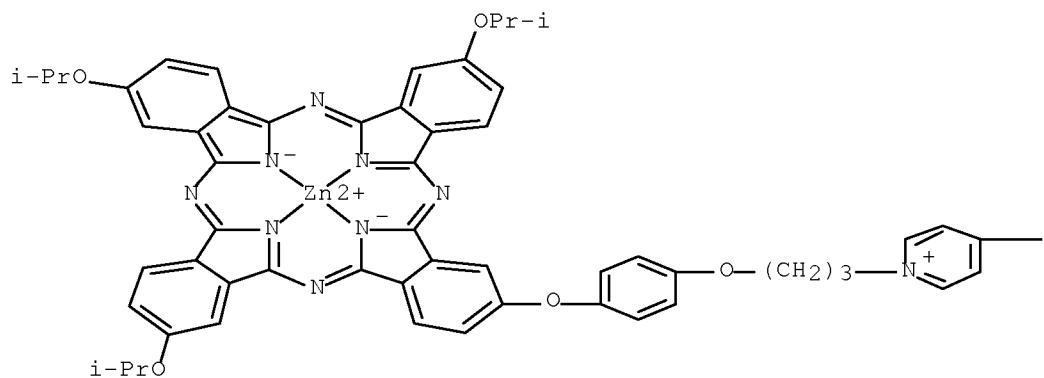
AB Photoinduced electron transfer and charge separation processes in zinc
 phthalocyanine-viologen linked system have been studied and the distance
 effect of donor/acceptor on electron transfer reaction is discussed. It is
 indicated that the fluorescence from the zinc phthalocyanine moiety is
 appreciably quenched and the life-time of singlet excited state is reduced by
 the pendant viologen. Time-resolved transient absorption spectra measurements
 show that intramol. quenching of the triplet state of zinc phthalocyanine by
 the attached viologen results in charge separation giving reduced viologen
 radical alive for a rather long period with hundred microsecond duration. The
 effect of the carbon chain length on the electron transfer rate constant and
 charge separation efficiency suggests that upon excitation, the zinc
 phthalocyanine and viologen groups tend to take closer conformation with the
 increase of the carbon chain examined. The rate constant for the intramol.
 electron transfer ket with n = 3 to 10 is in the order of 10⁴ s⁻¹ and
 increases.

IT 168103-11-5 168103-12-6 168103-13-7

(photoinduced intramol. electron transfer and charge separation in zinc
 phthalocyanine-viologen linked system)

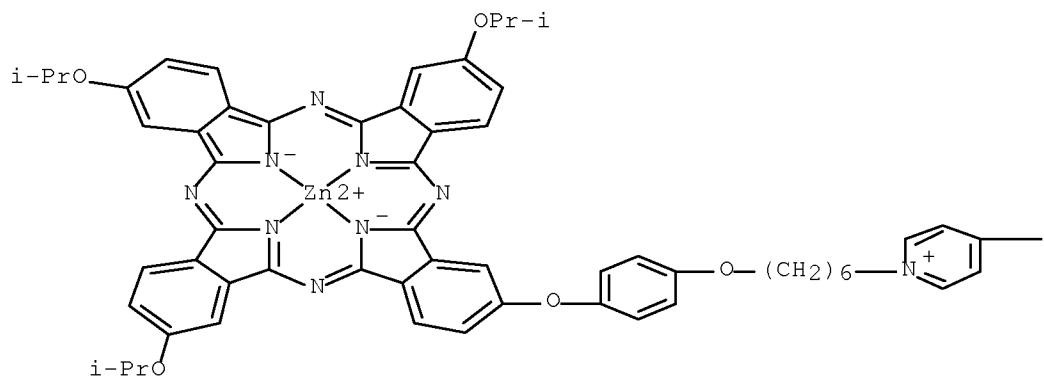
RN 168103-11-5 HCPLUS

CN Zinc(2+), [1-butyl-1'-(3-[4-[[9,16,23-tris(1-methylethoxy)-29H,31H-
 phthalocyanin-2-yl-κN29,κN30,κN31,κN32]oxy]phe
 noxy]propyl]-4,4'-bipyridiniumato(2-)]-, dibromide, (SP-4-2)- (9CI)
 (CA INDEX NAME)

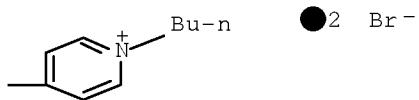


RN 168103-12-6 HCAPLUS

CN Zinc(2+), [1-butyl-1'-(6-[4-[[9,16,23-tris(1-methylethoxy)-29H,31H-phthalocyanin-2-yl-κN29,κN30,κN31,κN32]oxy]phe noxy]hexyl)-4,4'-bipyridiniumato(2-)]-, dibromide, (SP-4-2)-(9CI) (CA INDEX NAME)

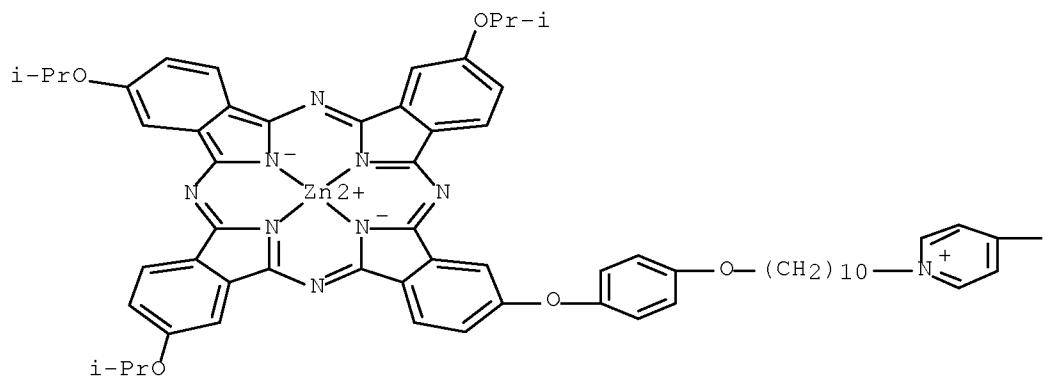


PAGE 1-B

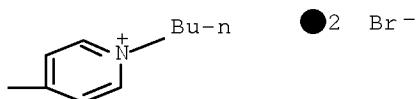


RN 168103-13-7 HCAPLUS
 CN Zinc(2+), [1-butyl-1'-[10-[4-[[9,16,23-tris(1-methylethoxy)-29H,31H-phthalocyanin-2-yl-κN29,κN30,κN31,κN32]oxy]phe noxy]decyl]-4,4'-bipyridiniumato(2-)]-, dibromide, (SP-4-2)- (9CI)
 (CA INDEX NAME)

PAGE 1-A



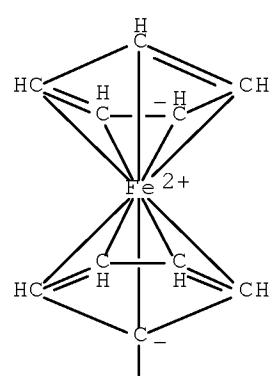
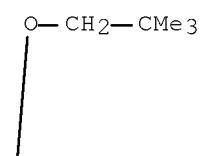
PAGE 1-B

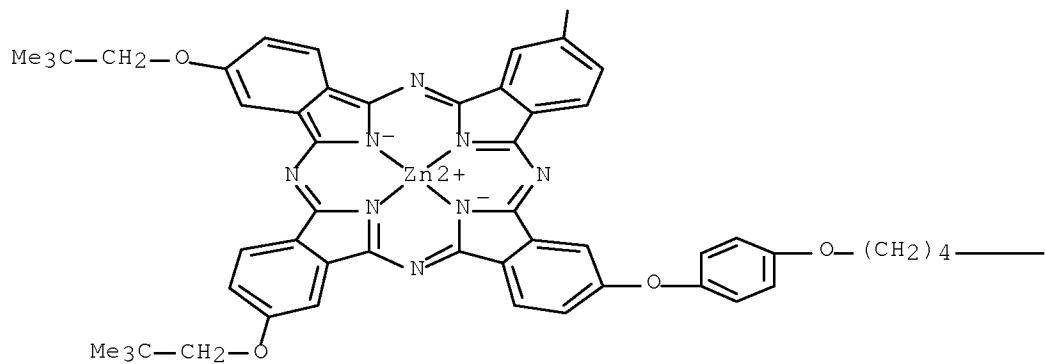


CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

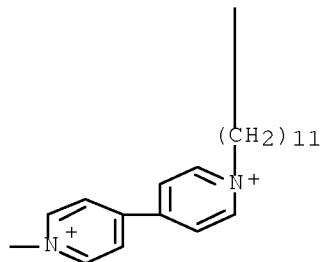
Section cross-reference(s): 29, 78
 IT Energy level excitation
 Fluorescence
 Photolysis
 Ultraviolet and visible spectra
 (photoinduced intramol. electron transfer and charge separation in zinc phthalocyanine-viologen linked system)
 IT 168103-10-4 168103-11-5 168103-12-6
 168103-13-7
 (photoinduced intramol. electron transfer and charge separation in zinc phthalocyanine-viologen linked system)

L47 ANSWER 15 OF 19 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1994:469195 HCAPLUS Full-text
 DOCUMENT NUMBER: 121:69195
 ORIGINAL REFERENCE NO.: 121:12241a,12244a
 TITLE: Photoinduced intramolecular electron transfer in triad compound zinc phthalocyanine-viologen-ferrocene and its photoelectric effect
 AUTHOR(S): Zhou, Qingfu; Liu, Jixiang; Xu, Huijun; Xu, Jinmei; Jia, Jianguang; Xiao, Xurui
 CORPORATE SOURCE: Inst. Photogr. Chem., Acad. Sin., Beijing, 100101, Peop. Rep. China
 SOURCE: Ganguang Kexue Yu Guang Huaxue (1993), 11(4), 349-55
 CODEN: GKKHE9; ISSN: 1000-3231
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese
 ED Entered STN: 06 Aug 1994
 AB A novel amphiphilic triad compound was synthesized by linking viologen with zinc phthalocyanine and ferrocene by flexible chains. Absorption and fluorescence spectra as well as fluorescence lifetime have been determined. Time resolved transient absorption spectrum and time profile measurements show that photoinduced intramol. electron transfer in the triad is more efficient than that in dyad, giving a final long-living charge-separated state with longer lifetime beyond 100 μ s. A mechanism of two-step charge separation process was suggested. The thin films of the triad compound mols. in monolayer and multilayers were successfully deposited on SnO₂ substrate and photoelec. effect of the Langmuir-Blodgett films were observed
 IT 151566-75-5
 (photoinduced intramol. electron transfer in, photoelec. effect in monolayer and multilayers of)
 RN 151566-75-5 HCAPLUS
 CN Zinc(2+), [1-(11-ferrocenylundecyl)-1'-(4-[4-[[9,16,23-tris(2,2-dimethylpropoxy)-29H,31H-phthalocyanin-2-yl]oxy]phenoxy]butyl)-4,4'-bipyridiniumato(2-)-N29,N30,N31,N32]-, dibromide, (SP-4-2)- (9CI) (CA INDEX NAME)





●2 Br⁻

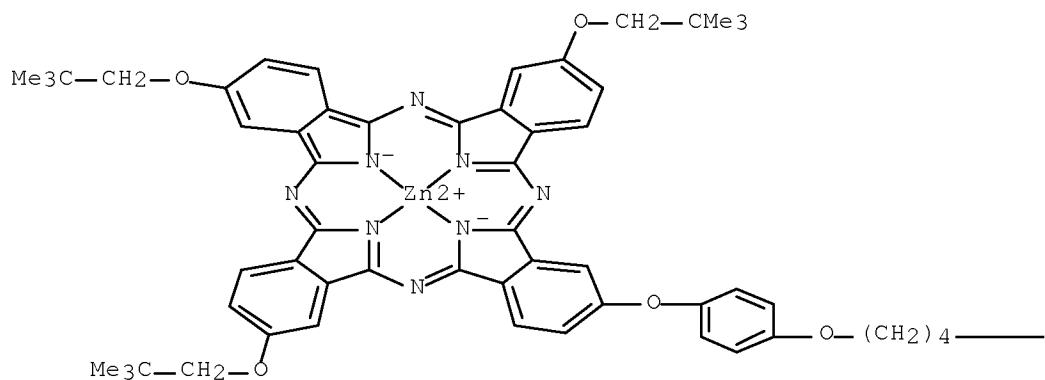


IT 151422-71-8

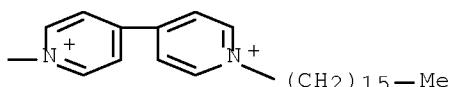
(photophys. properties of, intramol. electron transfer in)

RN 151422-71-8 HCPLUS

CN Zinc(2+), [1-hexadecyl-1'-(4-[4-[[9,16,23-tris(2,2-dimethylpropoxy)-29H,31H-phthalocyanin-2-yl]oxy]phenoxy]butyl)-4,4'-bipyridiniumato(2-)-N29,N30,N31,N32]-, dibromide, (SP-4-2)- (9CI) (CA INDEX NAME)



2 Br⁻



CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 151566-75-5

(photoinduced intramol. electron transfer in, photoelec. effect in monolayer and multilayers of)

IT 151422-71-8

(photophys. properties of, intramol. electron transfer in)

L47 ANSWER 16 OF 19 HCPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1994:41772 HCPLUS Full-text

DOCUMENT NUMBER: 120:41772

ORIGINAL REFERENCE NO.: 120:7513a, 7516a

TITLE: Influence of halogenation and aggregation on photosensitizing properties of zinc phthalocyanine.

AUTHOR(S): Zhang, Xianfu; Xu, Huijun

CORPORATE SOURCE: Inst. Photogr. Chem., Acad. Sin., Beijing, 100101,
Peop. Rep. China

SOURCE: Journal of the Chemical Society, Faraday Transactions (1993), 89(18), 3347-51

CODEN: JCFTEV; ISSN: 0956-5000

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 22 Jan 1994

AB The effects of halogenation and aggregation on photosensitizing properties of zinc phthalocyanine (ZnPC) were examined by photophys. methods. Halogenation decreases the fluorescence yield and lifetime, increases triple formation and shortens the triplet lifetime. These effects, which increase in the order Cl < Br < I, can be explained in terms of spin-orbit coupling theory. The aggregation behavior for halogenated ZnPC in DMSO was observed by absorption spectroscopy. Assuming that no higher aggregates than dimers are formed, dimerization equilibrium consts. were calculated using a modified non-linear least-squares fitting method. Quant. anal. for the influence of dimerization on apparent molar absorption coefficient, fluorescence quantum yield, and the quantum yield of singlet oxygen generation was given. Factors that govern the photosensitized production of singlet oxygen were also discussed quant. in

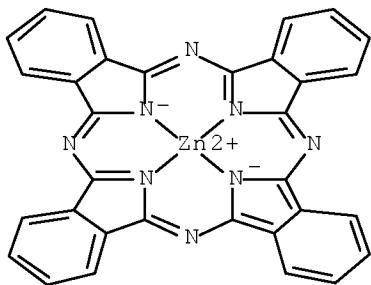
order to explain the ability of singlet oxygen production by halogenated ZnPC. The enhanced intersystem crossing process between the triplet state of sensitizer and oxygen was not affected by the nature of the halogen atom.

IT 152130-27-3

(photosensitizing properties of, effect of halogenation and aggregation on)

RN 152130-27-3 HCPLUS

CN Zinc, [C,C,C,C-tetrabromo-29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32]- (9CI) (CA INDEX NAME)



4 (D1—Br)

CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Fluorescence

(of zinc phthalocyanine, effect of halogenation and aggregation on lifetime of)

IT 27614-79-5 152130-27-3 152130-28-4

(photosensitizing properties of, effect of halogenation and aggregation on)

L47 ANSWER 17 OF 19 HCPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1993:685025 HCPLUS Full-text

DOCUMENT NUMBER: 119:285025

ORIGINAL REFERENCE NO.: 119:50739a,50742a

TITLE: Photoinduced intramolecular electron transfer in a novel zinc phthalocyanine-viologen-ferrocene triad system

AUTHOR(S): Liu, Jixiang; Zhou, Qingfu; Xu, Huijun

CORPORATE SOURCE: Inst. Photogr. Chem., Acad. Sin., Beijing, 100101, Peop. Rep. China

SOURCE: Chinese Chemical Letters (1993), 4(4), 339-42

CODEN: CCLEE7; ISSN: 1001-8417

DOCUMENT TYPE: Journal

LANGUAGE: English

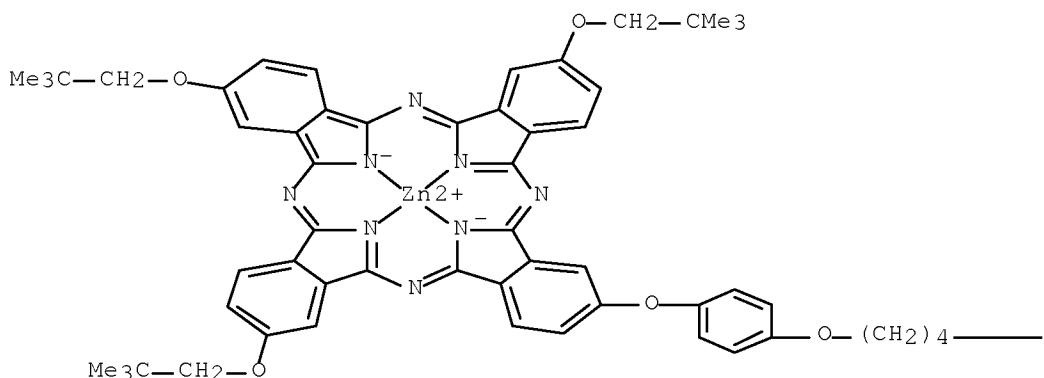
ED Entered STN: 25 Dec 1993

AB A novel triad system zinc phthalocyanine-viologen-ferrocene was prepared. Photoinduced intramolecular electron transfer in the new triad system was investigated by fluorescence quenching experiment and nanosecond flash photolysis technique, giving a final long-living charge-separated state. A mechanism of two-step charge separation was suggested.

IT 151422-71-8P 151566-75-5P

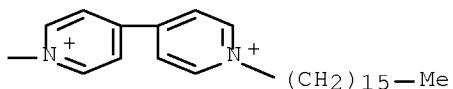
(preparation and fluorescence quantum yield and lifetime of)
 RN 151422-71-8 HCPLUS
 CN Zinc(2+), [1-hexadecyl-1'-(4-[4-[9,16,23-tris(2,2-dimethylpropoxy)-29H,31H-phthalocyanin-2-yl]oxy]phenoxy]butyl]-4,4'-bipyridiniumato(2-)-N29,N30,N31,N32]-, dibromide, (SP-4-2)- (9CI) (CA INDEX NAME)

PAGE 1-A

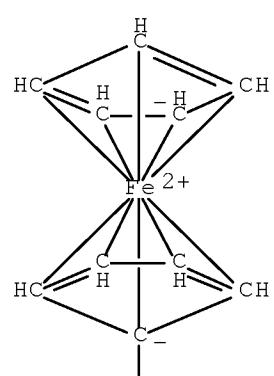
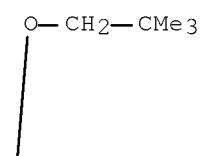


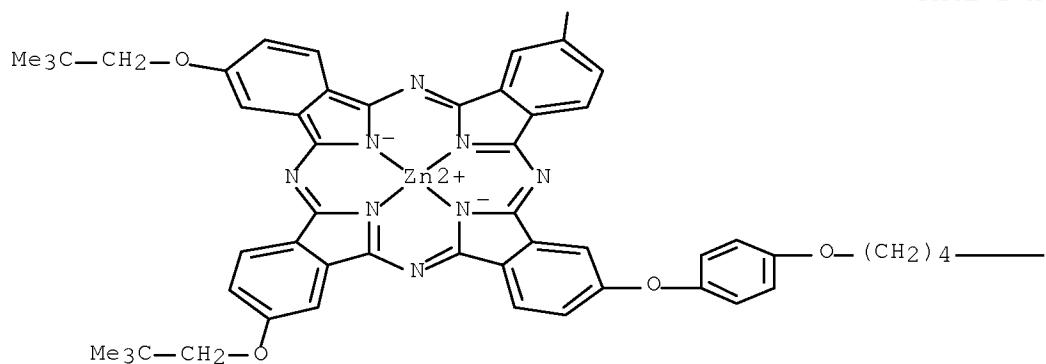
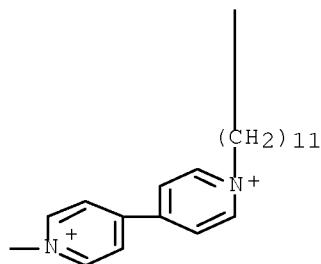
PAGE 1-B

●2 Br-



RN 151566-75-5 HCPLUS
 CN Zinc(2+), [1-(11-ferrocenylundecyl)-1'-(4-[4-[9,16,23-tris(2,2-dimethylpropoxy)-29H,31H-phthalocyanin-2-yl]oxy]phenoxy]butyl]-4,4'-bipyridiniumato(2-)-N29,N30,N31,N32]-, dibromide, (SP-4-2)- (9CI) (CA INDEX NAME)



●2 Br⁻

CC 78-7 (Inorganic Chemicals and Reactions)
 Section cross-reference(s): 73, 74
 ST electron transfer zinc phthalocyanine viologen ferrocene; zinc phthalocyanine ferrocenylviologen deriv; viologen ferrocenyl deriv phthalocyanine zinc; fluorescence zinc phthalocyanine ferrocenylviologen deriv
 IT **Fluorescence** quenching
 (of zinc phthalocyanine ferrocenylviologen derivative complex)
 IT **fluorescence**
 (of zinc phthalocyanine ferrocenylviologen derivative complex, quantum yields of)
 IT 93581-78-3P 151422-71-8P 151566-75-5P
 (preparation and fluorescence quantum yield and lifetime of)

 L47 ANSWER 18 OF 19 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1992:601592 HCPLUS Full-text
 DOCUMENT NUMBER: 117:201592
 ORIGINAL REFERENCE NO.: 117:34629a,34632a
 TITLE: Aspects of metal phthalocyanine photosensitization systems for light energy conversion
 AUTHOR(S): Xu, Huijun; Shen, Tao; Zhou, Qingfu; Shen, Shuyin; Liu, Jixiang; Li, Li; Zhou, Shengze; Zhang, Xianfu; Yu, Qun; et al.

CORPORATE SOURCE: Inst. Photogr. Chem., Acad. Sin., Beijing, 100101,
Peop. Rep. China

SOURCE: Journal of Photochemistry and Photobiology, A:
Chemistry (1992), 65(1-2), 267-76
CODEN: JPPCEJ; ISSN: 1010-6030

DOCUMENT TYPE: Journal
LANGUAGE: English

ED Entered STN: 15 Nov 1992

AB Metal phthalocyanine photosensitized donor-acceptor systems for light energy conversion and for the design of photoelectrochem. mol. devices are presented. Fluorescence studies show that the fluorescence and lifetime of the phthalocyanine moiety are appreciably diminished by attached viologen, quinones and porphyrin. The quenching of the fluorescence of Zn phthalocyanine by linked viologen, giving rise to a long-lived charge separated state, was observed by nanosecond laser photolysis. The decrease in the fluorescence and lifetime induced by quinones was examined and the apparent electron transfer rate consts. were calculated depending on the chain length and solvent polarity. When these linked compds. were incorporated into a lipid bilayer membrane (LBM) and/or coated on a transparent tin oxide electrode, an enhancement of the photoeffects was observed compared with nonlinked compds. and can be explained in terms of intramol. charge transfer processes.

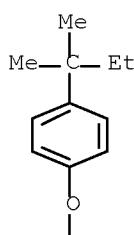
IT 128313-30-4 143714-19-6 143714-20-9

(photophys. of, light energy conversion and design of
photoelectrochem. mol. devices using)

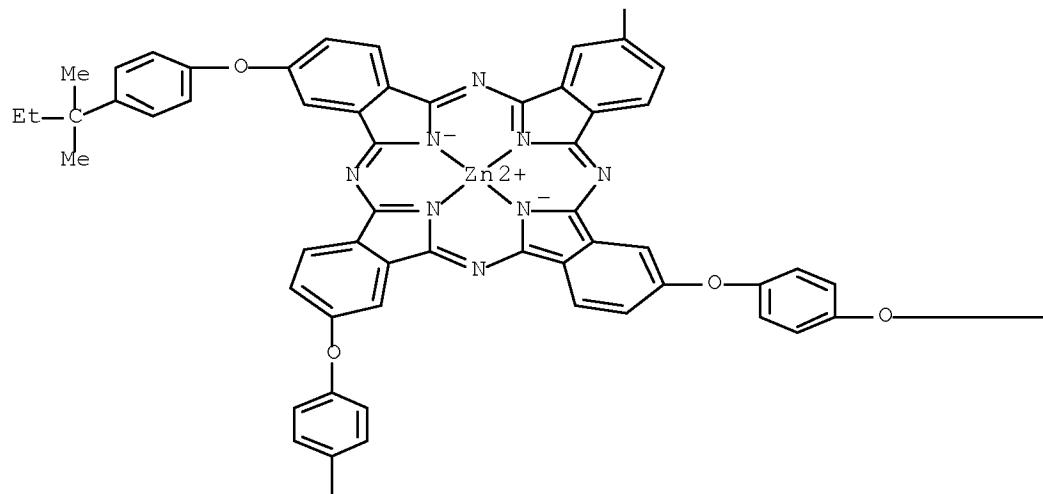
RN 128313-30-4 HCPLUS

CN Zinc(2+), [1-butyl-1'-(3-[4-[[9,16,23-tris[4-(1,1-dimethylpropyl)phenoxy]-29H,31H-phthalocyanin-2-yl]oxy]phenoxy]propyl]-4,4'-bipyridiniumato(2-)-N29,N30,N31,N32]-, dibromide, (SP-4-2)- (9CI)
(CA INDEX NAME)

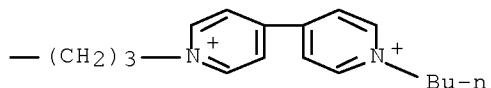
PAGE 1-A



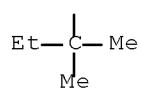
PAGE 2-A



PAGE 2-B

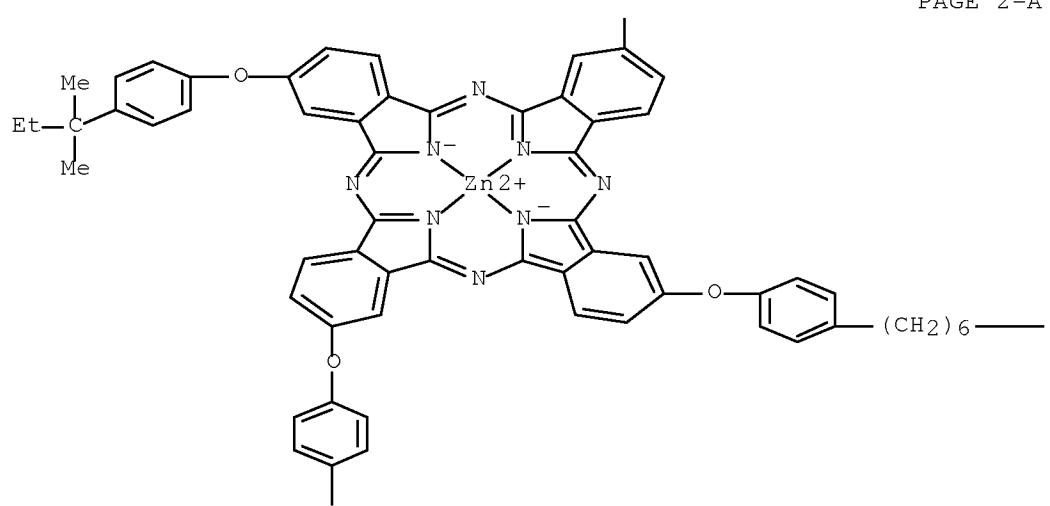
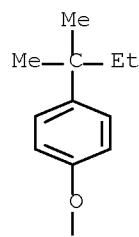


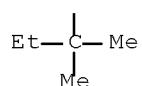
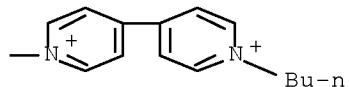
PAGE 3-A



●2 Br-

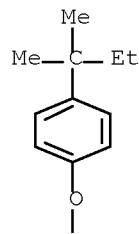
RN 143714-19-6 HCAPLUS
 CN Zinc(2+), [1-butyl-1'-(6-[4-[[9,16,23-tris[4-(1,1-dimethylpropyl)phenoxy]-29H,31H-phthalocyanin-2-yl]oxy]phenyl]hexyl]-4,4'-bipyridiniumato(2-)-N29,N30,N31,N32]-, dibromide, (SP-4-2)- (9CI)
 (CA INDEX NAME)



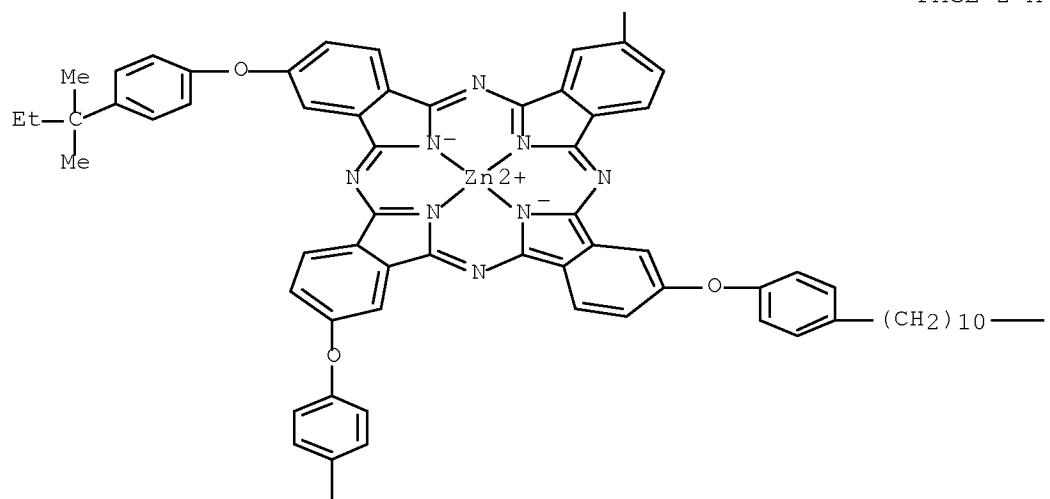


●2 Br-

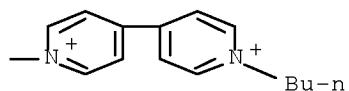
RN 143714-20-9 HCPLUS
 CN Zinc(2+), [1-butyl-1'-(10-[4-[[9,16,23-tris[4-(1,1-dimethylpropyl)phenoxy]-29H,31H-phthalocyanin-2-yl]oxy]phenyl]decyl)-4,4'-bipyridiniumato(2-)-N29,N30,N31,N32]-, dibromide, (SP-4-2)- (9CI)
 (CA INDEX NAME)



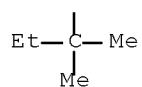
PAGE 2-A



PAGE 2-B



PAGE 3-A

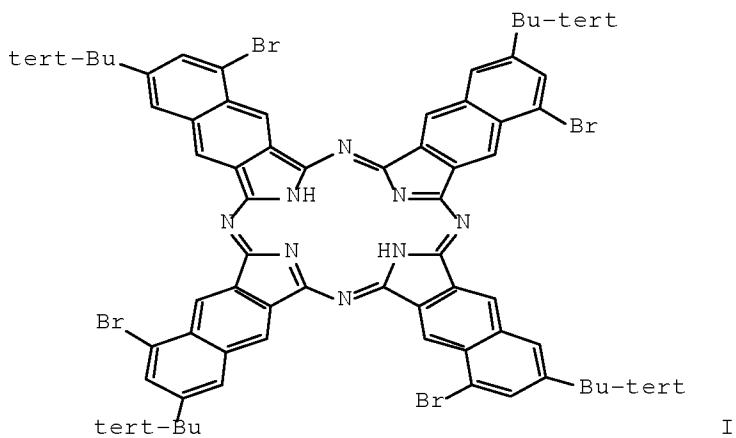


CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 29, 52
 IT Fluorescence
 Photolysis

(of zinc phthalocyanine-viologen donor-acceptor compds., for light energy conversion)

IT 135126-25-9 135126-26-0 143714-23-2
(photochem. electron transfer fluorescence quenching in,
design of photoelectrochem. mol. devices in relation to)
IT 128313-30-4 128484-77-5 128545-55-1 143714-19-6
143714-20-9
(photophys. of, light energy conversion and design of
photoelectrochem. mol. devices using)

L47 ANSWER 19 OF 19 HCPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1986:7202 HCPLUS Full-text
DOCUMENT NUMBER: 104:7202
ORIGINAL REFERENCE NO.: 104:1295a,1298a
TITLE: Phthalocyanines and related compounds. XXV.
5,5',5",5'''-Tetrabromo-7,7',7",7'''-tetra-tert-bu
tyl-2,3-naphthalocyanines
AUTHOR(S): Gal'pern, M. G.; Talismanova, T. D.; Tomilova, L.
G.; Luk'yanets, E. A.
CORPORATE SOURCE: Nauchno-Issled. Inst. Org. Poluprod. Krasitelei,
Moscow, USSR
SOURCE: Zhurnal Obshchey Khimii (1985), 55(5),
1099-106
CODEN: ZOKHA4; ISSN: 0044-460X
DOCUMENT TYPE: Journal
LANGUAGE: Russian
ED Entered STN: 11 Jan 1986
GI

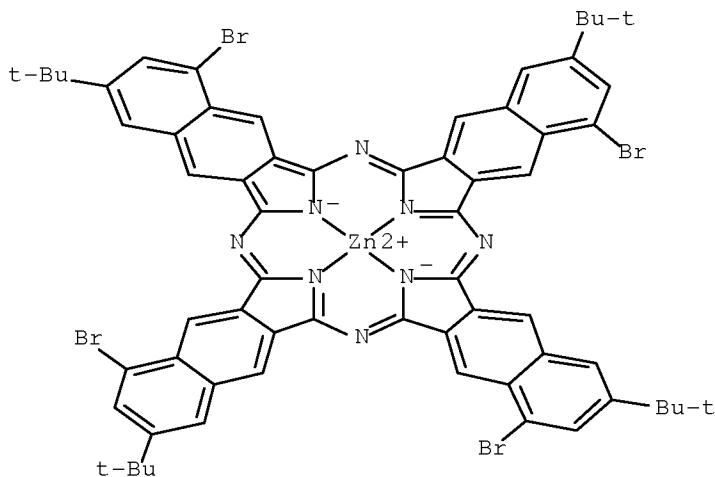


AB 5,5',5'',5'''-Tetrabromo-7',7'',7'''-tetra-tert-butyl-2,3- naphthalocyanine (I) [99520-49-7] and its Cu, Zn, Al, V, and Lu complexes were prepared and their spectral and oxidation properties were determined. The electrochem. oxidation potentials of I complexes indicated that the presence of Br groups led to increased oxidation stability, compared with nonbrominated analogs. The Br atoms also led to decreased solubility of I in organic solvents and to a broadening and hypsochromic shift of the main absorption bands. The Lu complex was a sandwich compound

IT 99537-08-3
 (electron spectra and oxidation of, bromine substituent effect on)

RN 99537-08-3 HCAPLUS

CN Zinc, [1,10,19,28-tetrabromo-3,12,21,30-tetrakis(1,1-dimethylethyl)-37H,39H-tetranaphtho[2,3-b:2',3'-g:2'',3''-l:2''',3'''-q]porphyrizinato(2-)-N37,N38,N39,N40]-, (SP-4-1)- (9CI) (CA INDEX NAME)



CC 41-7 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

IT Oxidation
 (of tetrabromotetra-tert-butylnaphthalocyanine and its complexes, bromine substituent effect on)

IT 61024-97-3
 (bromination of)

IT 99520-49-7 99537-07-2 99537-08-3 99537-09-4 99537-10-7
 99552-05-3 99562-03-5
 (electron spectra and oxidation of, bromine substituent effect on)

=> d his nofile

(FILE 'HOME' ENTERED AT 09:11:55 ON 28 APR 2009)

FILE 'HCAPLUS' ENTERED AT 09:12:06 ON 28 APR 2009

L1 1 SEA SPE=ON ABB=ON PLU=ON US20060098316/PN
SEL RN

FILE 'REGISTRY' ENTERED AT 09:12:22 ON 28 APR 2009

L2 3 SEA SPE=ON ABB=ON PLU=ON (14320-04-8/B1 OR 7726-95-6/B1
OR 97626-82-9/B1)
L3 28 SEA SPE=ON ABB=ON PLU=ON 14320-04-8/CRN
L4 1 SEA SPE=ON ABB=ON PLU=ON 97626-82-9/RN
L5 1 SEA SPE=ON ABB=ON PLU=ON 7726-95-6/RN
L6 1002 SEA SPE=ON ABB=ON PLU=ON 7726-95-6/CRN
L7 1 SEA SPE=ON ABB=ON PLU=ON L2 AND C32 H16 BR N8 ZN/MF

FILE 'HCAPLUS' ENTERED AT 09:14:27 ON 28 APR 2009

L8 2 SEA SPE=ON ABB=ON PLU=ON L7
L9 27 SEA SPE=ON ABB=ON PLU=ON L3
L10 2 SEA SPE=ON ABB=ON PLU=ON L4
L11 1251 SEA SPE=ON ABB=ON PLU=ON L6
L12 0 SEA SPE=ON ABB=ON PLU=ON L9 AND L11
L13 29 SEA SPE=ON ABB=ON PLU=ON (L8 OR L9 OR L10)
L14 1 SEA SPE=ON ABB=ON PLU=ON L13 AND L1

FILE 'REGISTRY' ENTERED AT 09:15:49 ON 28 APR 2009

L15 1 SEA SPE=ON ABB=ON PLU=ON 14320-04-8/RN

FILE 'HCAPLUS' ENTERED AT 09:16:15 ON 28 APR 2009

L16 1666 SEA SPE=ON ABB=ON PLU=ON L15
L17 0 SEA SPE=ON ABB=ON PLU=ON L16 AND L6
L18 6 SEA SPE=ON ABB=ON PLU=ON L16(L)GREEN PIGMENT?
L19 13 SEA SPE=ON ABB=ON PLU=ON L16 AND GREEN PIGMENT?

FILE 'REGISTRY' ENTERED AT 09:18:27 ON 28 APR 2009

L20 STR 97626-82-9
L21 0 SEA SSS SAM L20
L22 STR L20
L23 0 SEA SSS SAM L22
E ZINC PHTHALOCYANINE/CN
L24 1 SEA SPE=ON ABB=ON PLU=ON "ZINC PHTHALOCYANINE"/CN
L25 STR L20
L26 50 SEA SSS SAM L25
L27 3989 SEA SSS FUL L25
L28 2 SEA SPE=ON ABB=ON PLU=ON L27 AND L2
SAV L27 MCP321/A
L29 71 SEA SPE=ON ABB=ON PLU=ON L27 AND BR/ELS
L30 0 SEA SUB=L27 SSS SAM L20
L31 6 SEA SUB=L27 SSS FUL L20

FILE 'HCAPLUS' ENTERED AT 09:25:35 ON 28 APR 2009

L32 3 SEA SPE=ON ABB=ON PLU=ON L31
L33 46 SEA SPE=ON ABB=ON PLU=ON L29
L34 3553 SEA SPE=ON ABB=ON PLU=ON L27
L35 0 SEA SPE=ON ABB=ON PLU=ON L34 AND L11

L36 9 SEA SPE=ON ABB=ON PLU=ON L34 (L) GREEN PIGMENT?
L37 17 SEA SPE=ON ABB=ON PLU=ON L34 AND GREEN PIGMENT?
L38 7 SEA SPE=ON ABB=ON PLU=ON L37 AND BROMIN?
L39 3 SEA SPE=ON ABB=ON PLU=ON L33 AND GREEN PIGMENT?
L40 8 SEA SPE=ON ABB=ON PLU=ON L33 AND PIGMENT?
L41 29 SEA SPE=ON ABB=ON PLU=ON L33 AND PHOTOG?/SC, SX
L42 3 SEA SPE=ON ABB=ON PLU=ON L32 OR L10 OR L14
L43 17 SEA SPE=ON ABB=ON PLU=ON L35 OR L36 OR (L38 OR L39 OR
L40)
L44 15 SEA SPE=ON ABB=ON PLU=ON L43 NOT L42
L45 15 SEA SPE=ON ABB=ON PLU=ON L41 AND (CHLORIN? OR BROMIN?
OR IOD? OR FLUOR?)
L46 29 SEA SPE=ON ABB=ON PLU=ON L44 OR L45
L47 19 SEA SPE=ON ABB=ON PLU=ON L46 AND (1840-2003) /PRY, AY, PY